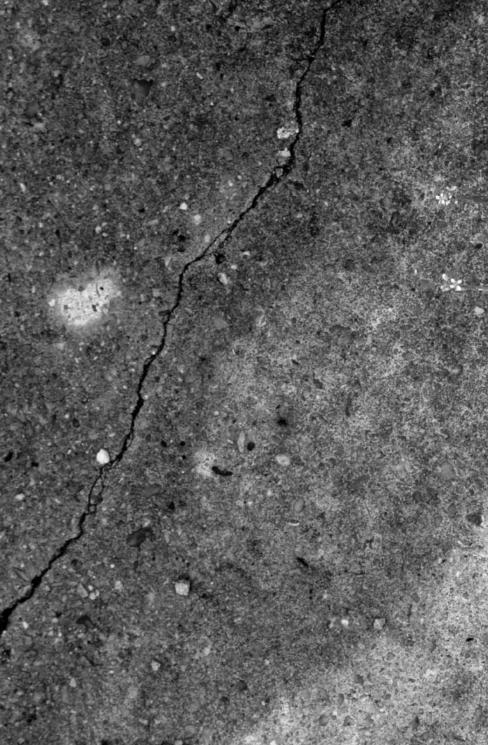
Grit

The skills for success and how they are grown

Yvonne Roberts





About the Young Foundation

The Young Foundation combines creativity and entrepreneurship to tackle major social needs. We work on many different levels to achieve positive social change – including advocacy, research, and policy influence as well as creating new organisations and running practical projects. The Foundation benefits from a long history of social research, innovation and practical action by the late Michael Young, once described as "the world's most successful social entrepreneur", who created more than 60 ventures which address social needs.

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GRIT

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Preface by Geoff Mulgan

Over the last two decades a gulf has opened up between what education systems provide and what children need. Education systems rightly provide children with skills in numeracy and literacy and academic qualifications. But the emphasis on a set of core academic skills, and a culture of intensive testing, has too often squeezed out another set of skills – how to think creatively, how to collaborate, how to empathise – at the very time when they are needed more than ever.

A remarkable body of new research over the last decade has confirmed the importance of these skills, through painstaking attention to patterns of success and failure. And millions of parents, teachers and children have observed the misalignment between what is being provided in the curriculum and what's really needed. Taking these skills seriously matters for many reasons. These are a few:

- they matter to educational achievement. These skills are not an alternative to academic performance. Instead, careful attention to them tends to correlate with doing well academically, as the very best schools have always recognised
- > they matter to social mobility.¹ We now know that a teenager in the 1950s had a much higher chance of moving up the ladder of opportunity than his or her counterpart today² and much of the recent evidence suggests that social skills of all kinds are a crucial part of the explanation
- they matter to employment and the economy. Employers consistently argue to policymakers that these are the skills they most want, but don't get, from young people leaving school and college
- > they matter to the wellbeing of children at a time when the UK performs particularly poorly in this regard. These skills are in part about being able to cope with the stresses and rebuffs of modern life
- > they matter to the achievement of a good society where people are able to understand and get on with strangers.

Yet despite some modest progress they remain relatively marginal to educational debates. They are acknowledged, but then ignored when it comes to passing laws, setting targets or training teachers.

This paper aims to address this damaging blind spot. It describes briefly what is meant by social and emotional skills, their roots, and their links to creativity and enterprise. It describes the 'seed' framework - social intelligence, emotional resilience, enterprise and discipline - which we have found useful for making sense of these different dimensions of character and motivation.3 It explains why these skills are attracting renewed interest now, and outlines the extensive research on the value of these skills to individuals and to employers. It explores in more detail the connections between competencies and the important drivers of resilience, motivation and persistence - and the barriers that prevent children and young people exercising these skills to their full advantage. Finally, it looks at what works and how innovators are developing practical projects to demonstrate a 21st-century definition of what it means to be a 'well-educated' child. As in other areas of education the best models are often very explicit about what skills are being developed and why, with constant feedback, coaching and encouragement.⁴

The paper primarily draws on recent research findings. But it also draws on many decades of work at the Young Foundation devoted to better understanding educational needs and innovating more effective ways of meeting them. In the past that has led to initiatives as diverse as the Open University and extended schools, the University of the Third Age and the Summer University. Today it is guiding our work in helping to create new schools (Studio Schools), new platforms for learning (the School of Everything), and new programmes for 11-year-olds (the resilience programme), unemployed graduates (Fastlaners) and young leaders (Uprising). Many other innovators are also pioneering better ways of preparing young people for life.

We believe in evolution rather than revolution – and evolution guided by experience, research and experiment. But evolution needs to be guided by a clear-sighted vision of how education needs to change.

There is a remarkably broad consensus on what would be in the

curriculum if it started with children's present and future needs rather than what's familiar to policymakers or teachers. What's required includes systematic reasoning, creativity, collaboration and the ability to communicate, as well as mastery of disciplines.

That some parts of this future curriculum are harder to test and measure, and harder to turn into national standards and targets, is no longer, if it ever was, an acceptable reason for ignoring them.

Introduction

Even as the recession bites deep, it's predicted that within the next 20 years, the world economy will double in size. A billion skilled jobs and thousands of new industries will be created.⁵ In this next phase of the globalised economy, Asia and South America will provide new markets, new consumers and a fresh pool of talent. The children going through school now may find themselves in a workplace that, more than ever, demands initiative, resourcefulness, determination and the ability to adapt to constant change.⁶

The scale of that challenge requires a different way of learning to that which is often found in today's classroom. Common practice includes 'teaching to the test' and a highly prescriptive curriculum that focuses very much on didactic methods and academic ability measured by exam results and IQ. Tomorrow's world will require adults who have been taught to draw on a wider range of capabilities and competencies; who are curious, resilient, self-disciplined and self-motivated; who can navigate differences, overcome language and cultural barriers, and who are at ease working in a team.

While the purpose of education is to prepare young people for the future, it also has a duty of care for those in its charge in the present. The need to develop an education system fit for the 21st century is under more immediate pressure because of the growing concern about the mental health and wellbeing of many children and adolescents. Poor mental health damages life chances and depresses educational attainment.

In a recent survey of child mental health in the UK, 44 per cent of children with emotional disorders were behind in their overall educational attainment. In 2004, the *Journal of Child Psychology and Psychiatry* reported on a study comparing teenagers' mental health in 1974, 1986 and 1999. The report says: "The mental health of teenagers has sharply declined in the last 25 years ... the rate of emotional problems such as anxiety and depression has increased by 70 per cent in adolescents". ¹⁰

Yet another related trigger for action is the widening gap between rich and poor and the apparent stalling of social mobility in the UK. In the 1950s, education offered opportunity. It meant that where you came from did not automatically dictate where you might end up. School, training and higher education could open up a different future from that of your parents. Yet research commissioned by the Sutton Trust on the millennium cohort shows that today, as in 1970, parental background not individual talent is the main determinant of children's outcomes.

Critics argue that the flat-lining of social mobility has happened because the better-off benefit from generations of good genes and behaviour. Yet in other countries, such as Sweden and Finland, the background of parents does not matter as much in predicting the achievements of their offspring, while the work of American political scientist James Flynn seems to indicate that culture, conditioning and the environment play crucial roles in developing a child's potential, irrespective of family origins.

He has shown, in what has become known as 'the Flynn effect', hat IQ levels are increasing in the developed world by three percentage points per decade – and not because of improved diet or familiarity with the regime of testing. "The gains in intelligence are real", Flynn explained to one interviewer, "but we have to rethink exactly what we mean by intelligence... We've got better in those areas that society values ... Where logic and hypothesis used to be tightly linked to concrete situations, we are now much more in the habit of thinking in abstract terms. People are now much more open to moral debates because that's what society takes seriously; and it's this skill that is rewarded in the IQ tests... "12

Research, referred to later in this paper, tells us that education, properly tailored, can make young people smarter; it can encourage them to develop their talents and capabilities to the full, no matter how deprived their beginnings. Yet, in spite of billions of pounds invested in early years, schooling and further education, and a strong government focus on children's wellbeing via such initiatives as Every Child Matters, ¹³ many young people in the UK have become disengaged

from education, believing themselves 'failures' from an early age, leaving school in huge numbers lacking qualifications, self-awareness and self-confidence and languishing rather than flourishing.

The current education system isn't just failing the disadvantaged; it appears to be extinguishing valuable assets in children of all abilities. In studies at the University of Bristol, students' perceptions of their own effectiveness and confidence as learners drop significantly from key stage 2 to key stage 3. Thirteen-year-olds see themselves as less resilient, less resourceful, less curious and less good at team work than nine-year-olds. ¹⁴

Another charge against current schooling – explored in more detail later in this paper – is that, whether or not exams have been 'dumbed down', employers repeatedly complain that new recruits lack the skills they need to relate to others. They are remiss in team work, they fail to communicate, motivate and manage themselves effectively. This is particularly true of those from deprived backgrounds. ¹⁵

A glimpse of why these shortcomings have been so prevalent for years and appear to be getting worse is revealed in Ipsos MORI polls conducted regularly since 1998 by the Campaign for Learning, charting the attitudes of children and young people to learning. While the popularity of practical learning has risen sharply from 35 per cent in 1998 to 56 per cent in 2008, many students see education as a passive 'hands off' event, the main aim of which is to digest large chunks of information. Asked what they do most often in school, 65 per cent of 11 to 16-year-olds say they copy from a board or a book (in 2000 the figure was 56 per cent); followed by 'listen to a teacher talking for a long time' (63 per cent; in 2007 the figure was 33 per cent). Only 19 per cent saw 'a sense of achievement' as a benefit of learning (compared with 35 per cent in 1998). 16 The lack of encouragement for pupils to exercise their curiosity was exposed in one study a couple of decades ago. It found that over a school year, young people asked an average of just one question a month. 17 This is a situation that has changed radically in some schools, but not nearly enough.

Against this background of the widening cracks in the current education system, this paper's remit is a brief exploration of a quiet

but very positive evolution in learning, first begun a couple of decades ago, and now accelerating so rapidly (if unevenly) it is outpacing both Government and policymakers. It is also influencing the work of organisations and schools around the world, including the philosophy that shapes the Young Foundation's Learning Launchpad and the practical projects it is developing (detailed at the end of this paper).

American education expert Linda Lantieri calls this, "a sea change – a new way of thinking about what it means to be an educated person". ¹⁸ It has been boosted by advances in neuroscience that provide a better understanding of how the brain operates, as well as years of robust research and evaluations into a field that operates under a variety of headings such as social and emotional learning, life skills, social and emotional competencies, non-cognitive skills, employability skills and character education, all of which cover similar territory.

In the US, the value of social and emotional learning and motivation, including its constituent parts, resilience and persistence or grit, is well established. In Illinois, for example, a law was passed in 2003 requiring schools to address the social and emotional needs of all students. While some of the many thousands of programmes lack evaluation, and the taxonomy and outcomes are vague, others provide a strong and rigorous evidence base that shows positive outcomes. Social and emotional learning (SEL) is seen as the process through which children and adults acquire the knowledge, attitudes and skills to:

- > recognise and manage their emotions
- > set and achieve positive goals
- > demonstrate caring and concern for others
- > establish and maintain positive relationships
- > make responsible decisions
- > handle interpersonal situations effectively. 19

A categorisation which underpins several of the best-known programmes found in schools across the globe is one popularised by psychologist Daniel Goleman. In 1995, in his international bestseller *Emotional*

Intelligence: Why it can Matter More than IQ, he wrote: "One of psychology's open secrets is the relative inability of grades, IQ or SATS scores, despite their popular mystiques, to predict unerringly who will succeed in life ... There are widespread exceptions to the rule that IQ predicts success ... At best IQ contributes about 20 per cent to the factors that determine life success, which leaves 80 per cent to 'other forces'."

In the mid 1990s, in the US, Goleman co-founded the Collaborative for Academic, Social and Emotional Learning (CASEL). Ever since, it has conducted research and developed and evaluated programmes that explore how best to define and teach these 'other forces'. CASEL's list of life skills include:

Self-awareness that encompasses recognising and naming one's emotions and understanding the reasons and circumstances for feeling as one does; having a positive and accurate sense of yourself; having a sense of coherence about your life.

Social awareness that includes increasing empathy and sensitivity to others' feelings and understanding the points of view of others.

Self-management and self-discipline that includes focusing on tasks in hand and mobilising positive motivation, showing optimism and planning and setting goals; relating skilfully to difficult feelings and impulses such as anger, sadness, anxiety and frustration. Among the driving forces of motivation are resilience and persistence or grit.

Responsible decision making that includes exercising problemsolving skills.

Social skills that include the ability to communicate, develop a cogent argument and be assertive.

Goleman has his critics.²⁰ They claim that his notion of emotional intelligence, 'EQ', is "a ragbag which includes any positive human characteristics other than IQ ... [many of which] largely emanate from personality".²¹ The use of the phrase 'emotional intelligence' for instance implies an innate gift when research indicates that intelligence does not

necessarily equate with social skills - and the latter can be taught.

But many others have reached similar conclusions to Goleman, albeit from very different directions. The American economist and Nobel Prize winner James Heckman, for example, says these social or behavioural skills haven't been sufficiently valued in the past because, unlike IQ, they can't be measured. Drawing on large-scale collection of data on skills and education, he states that there is evidence that these skills – also described as 'competencies' — do have a value and bring a clear economic return when invested in early in children, particularly disadvantaged children. Focusing solely on earnings gains, returns to dollars invested are as high as 15-17 per cent. In some circumstances these emotional and social competencies may have a greater value than IQ to an individual. These skills also have more plasticity than intelligence and can be shaped at a later age.

Heckman writes that "life cycle skill formation is a dynamic process where early inputs greatly affect the productivity of later inputs in the life cycle of children. Skill begets skill; motivation begets motivation. Early failure begets later failure." ²²

This is a messy terrain, full of competing and sometimes confusing labels. To help lend some simplicity and shape, the Young Foundation has suggested the division of these competencies into four clusters. The four make up the acronym SEED.

'S' is for social and emotional competencies that include, as described earlier, self-awareness, social awareness and social skills

'E' is for emotional resilience — the ability to cope with shocks and rebuffs that may be short term or consume a long period of a child's life.

'E' is for enterprise, innovation and creativity – the ability to shape situations, imagine alternatives; remain open to new ideas, problem-solve and work in teams

'D' is for discipline — both the inner discipline to defer gratifications and pursue goals and the ability to cope with external discipline. Discipline, motivation and its driver, persistence or grit, can

encourage a child to go further than his or her IQ might predict. It can push open the door to opportunity.

These critical social-emotional competencies or SEED skills enable children to 'think straight', to calm themselves when angry, to initiate friendship and resolve conflicts, to make ethical and safe choices – 'proofing'against anti-social and self-destructive behaviour – and to contribute constructively to the community.

Some of these skills may be familiar, but others including grit and resilience have not been prominent in educational policy and practice. This paper focuses on these two in particular because of the remarkable gap between what's known about their importance and current practice in schools. Their meanings are very familiar from daily life. One group of academics, for example, describes grit as: "working strenuously towards challenges, maintaining effort and interest over years despite failure, adversity and plateaus in progress. The gritty individual," they explain: "approaches achievement as a marathon: his or her advantage is stamina. Whereas disappointment or boredom signal to others that it is time to change trajectory and cut losses, the gritty individual stays the course." Their research indicates that this stamina can be cultivated – how this occurs is described later in this paper.

Resilience on the other hand originates from the Latin word *resilio* – 'to jump back'. Psychoanalyst Boris Cyrulnik says: "Resilience is about abandoning the imprint of the past". As this paper explains in more detail later, research says there is no resilient personality. It is not a character trait or a particular attribute that is uniform to all resilient people. Resilience may come and go in an individual's life. It may also appear long after an experience of adversity. What helps in its development is if a child is securely 'attached' to a parent or carer in the early months of life. British psychiatrist John Bowlby pioneered attachment theory in the 1950s. According to Cyrulnik, who works with traumatised children internationally, however, security and affection can develop resilience even in children who have been insecurely attached.²⁵

Some social and emotional difficulties begin even before birth. As

one commentator recently put it, "the most important six years in a person's life are up the age of five." Out of one million UK children with emotional and behavioural problems, Professor Vivette Glover, professor of perinatal psychobiology at Imperial College, London, estimates that 150,000 have been affected by perinatal stress in pregnancy. In the early years, the neural system and the brain change according to use. Dr Bruce Perry, an authority on child trauma and maltreatment, describes how "physical connections between neurons – synaptic connections – increase and strengthen through repetition or wither through disuse ... early life experiences, therefore, determine how genetic potential is expressed or not." 28

Ideally, strong brain development and a training in good communication, social skills, self-discipline and motivation are acquired growing up in a stable family and community, in which people treat one another with warmth and respect, parents have time to play and interact with their children, discipline is calm and consistent with realistic rules and boundaries and expectations are high.²⁹

However, increasing family breakdown, serial changes in adult partnerships and the more limited role of the extended family, plus the effects of deprivation, increase the chances that this home 'tuition' cemented by love, approval and affection is absent. Many children face multiple hurdles. Each day can present a fresh set of hazards, inside and outside the home. Families may be plagued, for instance, by poor mental health, inadequate incomes and disruptive and depressing neighbourhoods. In these circumstances, the acquisition of certain competencies requires Herculean determination.³⁰ In the 1950s, children and young people could move into unskilled work or apprenticeships in heavy industry and manufacturing. Under the guidance of older men they were encouraged to 'shape up'. Those opportunities are now lost.

Blanden, Gregg and Macmillan asked why social mobility declined between 1958 and 1970 using cohorts of the National Child Development longitudinal study.³¹ They discovered that in the earlier cohort, there was very little relationship between non-cognitive skills (now more often referred to as social and emotional competencies) and parental

income. In the second cohort, "parental income had much more impact on non-cognitive scores... these scores... impacted on earnings... primarily through enabling children to achieve more in education." In other words, since the 1970s, the acquisition of these SEED skills has given some children and young people, already endowed with health, wealth and stable parenting, a further advantage, not least because these skills boost educational attainment. The authors say of their findings: "Equality of opportunity is a stated policy goal of leaders of all major political parties in the UK. The results [of this study] suggest that the UK has moved decisively away from that goal through a strengthening of the social gradient associated with educational attainment. This in part stems from the growing importance of non-cognitive factors and the increased relationship between these variables and parental background."

The authors suggest that policy should try to close the non-cognitive gap between rich and poor children: "This should focus on the personal efficacy (the sense that your own actions can make a difference), concentration and anxiety of children from low-income backgrounds."

This is precisely what the best social and emotional learning programmes try to do. They provide some compensation, often working with parents and the local community. For instance, three US studies – the Early Training Project, the Carolina Abecedarian Project and the Milwaukee Projects – which encourage life skills in children from poor socio-economic families, found little evidence of improvement in IQ but did see positive effects in school and college attainment, social skills and behaviour. Motivation and these skills also reduce the impact on crime and improve health and employment prospects. A recent US meta-analysis (CASEL 2009) summarised research on 207 programmes. It suggested that schools with effective programmes showed an 11 per cent improvement in achievement tests; a 25 per cent improvement in social and emotional skills and a 10 per cent decrease in classroom misbehaviour, anxiety and depression.³⁴

Two reviews of 39 American character-education programmes produced similar results. The programmes used tools that included lessons in awareness of social skills; problem solving and decision

making; non-didactic teaching; mentoring and the integration of character concepts (values, ethics etc) into the entire academic curriculum. Improvements in academic achievement, social-moral cognition, pro-social behaviour and attitudes, and problem-solving skills were noted. There was also a reduction in drug use, violence and aggression. Again, in 2008, the Marcelino Botlin Foundation, based in Santander, Spain, published one of the first international surveys of social and emotional education.³⁵ It included a meta-analysis of 19 reviews that cover several decades since the 1950s, as well as 76 controlled studies of social and emotional learning undertaken in the US and Europe in the 10 years up to 2007.

The conclusions of both studies are crystal clear. They confirm that social and emotional learning reduces or prevents mental and behavioural problems and/or promotes academic achievement. Some of the effects of social and emotional learning, such as positive behaviour, do decrease over a long period of follow-up time. Other effects, such as prevention of mental problems and drug abuse, appear to increase after completion of the programme.

The study says a number of questions remain. Among them is the 'dosage' of programmes required, and why some children respond better than others. But the report also states bluntly that on the evidence of this success, "failure or refusal to adopt and appropriately support the implementation of [these] programmes in primary and secondary education is equal to depriving children and youngsters of crucial and scientifically substantiated opportunities for their personal, social and academic development... a flagrant violation of the United Nations Convention of the Rights of the Child". 36

In England, social and emotional learning forms part of the compulsory strands of the national curriculum in personal social and health education (PSHE) and citizenship education. There are also programmes, such as Social and Emotional Aspects of Learning (SEAL) taken up on a voluntary basis by around 60 per cent of primary schools and 15 per cent of secondary schools – with plans to roll out the scheme to all secondary schools by 2010. SEAL provides a frame-

work and guidance to develop pupils' social and emotional skills within each school's particular circumstances – supported by a team of advisors at the DCSF. There are five learning themes self awareness; managing feelings; motivation; empathy and social skills.

Every school develops its own programme, so any sound evidence base is difficult to establish. The lack of uniformity, close monitoring and supervision prompts critics such as Carol Craig of the Centre for Confidence and Wellbeing to argue that there is a danger in a 'feelings centred agenda' that may not suit children who, for instance, cope better by not articulating their emotions.³⁷ However, a UK review of whole-school approaches (rather than targeting individual children) found that 17 international SEAL programmes reduced aggression, depression, impulsiveness and anti-social behaviour, and developed cooperation, resilience, optimism, empathy and a positive and realistic self-concept.³⁸ (Again, the interventions varied in design, goals and methodology, so it is difficult to establish their comparative effectiveness.)

Results such as these, however fragile, have prompted the Qualifications and Curriculum Authority to develop a new framework for describing personal, learning and thinking skills (PLTS) in secondary schools that include creativity, critical thinking and community participation. The skills are embedded in the new diploma, although it has yet to prove popular.

Ofsted reported on a SEAL pilot in 11 secondary schools (2007) that: "The quality of the leadership, rather than the context of the school, was the main factor ensuring success ... pupils worked better in teams, were able to recognise and articulate their feelings more effectively, and showed greater respect for each other's differences and strengths. In particular their resilience – the ability to cope with challenge and change – improved."

While some findings are less than robust, systematic reviews of programmes using the most rigorous and exacting criteria do appear to demonstrate that the best are effective. As Christopher Clouder and Belinda Heys point out: "It is increasingly acknowledged that pupils need to learn and to be taught about the behaviour appropriate to particular

situations, just as they have to learn and be taught, for example, the suitable arithmetic function for a problem."³⁹

Even so, in England (Scotland and Wales have progressed further and faster), social and emotional learning, too often, is a quick-fix bolton session, rather than deeply embedded in the school culture, influencing not just what is taught, but how learning takes place. When that happens, as this paper briefly details, it adds significantly to the experience of schooling, even for those already identified as the brightest and the best. For many thousands of children and young people, the SEED skills also offer the hope of a better future than that permitted their parents. The acquisitions of these competencies are, arguably, therefore a valuable route to social mobility.

James Heckman writes: "Numerous instances can be cited of people with high IQs who fail to achieve success in life because they lacked self-discipline – and of people with low IQs who succeeded by virtue of persistence, reliability and self-discipline." ⁴⁰

This view has been echoed by many others. In 1976, Samuel Bowles and Herbert Gintis ⁴¹ were among the first to argue that non-cognitive traits and behaviour are more important than cognitive skills in determining schooling and employment. In 2002, 25 years later, the authors claimed that subsequent research had vindicated their position. ⁴²

Similar results have been found in the UK. Leon Feinstein of the Institute of Education reports that a child's dedication and capacity for concentration at the age of 10 has a much bigger impact on earnings 20 years later than his or her ability in maths. A sense of personal agency at the age of 10 is also more important to life chances than reading skills. 43

In the UK, in addition to SEAL, a range of approaches have been tried on a small scale. These include US models such the Penn Resiliency Programme (PRP), part of the Young Foundation's Local Wellbeing Project in schools. PRP draws on positive psychology. It is a cognitive behavioural intervention for adolescents that teaches them gradually to change the beliefs that are fuelling their maladaptive emotions (or more colloquially, to control the volume of their "internal radio station – one that plays nothing but you 24/7"). ⁴⁴ It encourages them to keep a sense

of perspective; to 'think outside the box' and more flexibly about the multiple and varied causes of problems ('self disputing') and to restrict the tendency to 'catastrophise' that fuels negative thoughts. All of this aims to develop a young person's emotional and social competence. Eleven evaluations of PRP have shown it cuts teenage depression by up to half and bad behaviour by a third. Sustaining the improvement may be more challenging and require further refinement. Martin Seligman et al have pointed out, for some children and young people, "intervention effects wane or become inconsistent."

Schemes such as PRP and other programmes are still in their relative infancy. Even when fully developed, their provision is obviously not a substitute for tackling social injustice. Nevertheless, evidence is growing of their efficacy for some children, especially those who face significant economic and social hurdles. Acknowledgement of the value of SEED skills has been growing for a number of years. Only recently, however, have some of the major barriers to their development in mainstream education begun to be removed. The Excellence and Enjoyment strategy introduced in primary schools in 2003, for instance, has encouraged individual schools to demonstrate more flexibility and imagination in the curriculum.

"The zeitgeist is moving against central control," says Professor Chris Husbands of the University of London's Institute of Education. "We are moving to a more diversified system of autonomous schools. We may soon see chains – the Tesco or John Lewis chain of schools, for instance – each offering their own ethos and different styles of curriculum content and teaching. Nevertheless, however varied, what most teachers know is that a child's social and emotional condition is the key to his or her ability to learn."

The numbers of radically different schools and projects is growing in the UK. At Monkseaton High School in Tyne and Wear, for instance, young people are taught by 'spaced learning'. Eight minutes of a PowerPoint presentation on a subject is followed by 10 minutes of physical activity; then the routine is repeated. Each time there are gaps left in the presentation, and the children are required to fill in

the missing words and ask questions, absorbing knowledge as they do so. This technique is based on studies indicating that connections between developing brain cells form most effectively when the brain is given regular breaks. Louise Dickson, the science teacher, says she has seen pupils go up two grades. But this approach also encourages competencies associated with social and emotional learning – such as communication, persistence and self-belief. "It's not just about instant results," Dickson is quoted as saying. "Spaced learning really motivates the pupils ... they really gain confidence as we progress... We've seen the students themselves start to believe they can achieve better grades and set their own goals higher." ⁴⁶

At other schools, instead of lasting a matter of minutes, one lesson may last several days, a week or even a month. At the 2,200 Thomas Deacon Academy in Peterborough, which opened in 2007, there is no playground, no break time and no bells; teachers provide a break when they feel it's required. "If people went to the doctor and were treated the same way today as they would have been 30 years ago, there would be a national outcry," says Alan McMurdo, the head teacher. "Kids have higher expectations these days. They can multi-task and access new technology to a degree – and at a speed – that adults can only dream of, so if education is to remain relevant to them, we have to adapt whether we like it or not."

In a paper, Lifting the lid on the creative curriculum, funded by the National College for School Leadership, Tim Burgess looks at four schools that have adopted a creative curriculum, albeit inhibited by the, "huge pressure to meet targets and adhere to standards"⁴⁹ and, what he calls, "an oppressive data-police mentality". At West Hill Primary School in Wandsworth, London, the staff follows an 'inquiry based' creative curriculum so called because every lesson begins with a question. Most subjects are taught through broad themes that run for between a half and a whole term. For instance, the theme of aliens revolved around ET. Activities included making puppets, drama and film. A literacy lesson involving a Chinese fairy story, is taught around the children learning to cook stir-fried vegetables. (Yusuf, in Year 2, says, "It's fantallytastic!")

Lisa Carmen, a teacher at the school, explains; "The key is having the confidence that using drama, film, practical and artistic routes will improve children's writing and maths. This happens because they are interested and motivated to learn." ⁵⁰

The school still meets the objectives of the national curriculum and the children take SATs, but there is a very different focus in the process of learning that makes the connections between subjects clearer and takes note of the readiness of each child to respond to what is being taught. Julie Dobson says, "We realised [the children] could be much more engaged in learning – and also that they weren't always ready for learning; maybe they had had an argument with a friend or something at home was stopping them from being able to engage. That's why emotional and social literacy is now at the heart of what we teach ... Parents have responded brilliantly, helping the children to produce fantastic homework and doing activities relevant to what we are learning at school."⁵¹ ⁵²

"We know that the 'one size fits all' industrialised model of education has to go," says Professor Stephen Heppell, Education Policy Advisor and Professor of New Media Innovations at the University of Bournemouth. "That model wasn't built around the best way children can learn, but the best way to organise learning. The innovation that's taking place now is coming from the named and shamed schools at one end of the spectrum and the very best schools whose kids are bright but bored to tears at the other. Schools are learning from each other about what works, including the importance of social and emotional competencies. However, the system isn't learning from the schools."

The flowering of myriad different styles of schools, apprenticeships and experiments in further education offers much-needed diversity. This paper argues that the roots of such experimentation should be planted firmly in social and emotional learning, an understanding of the importance of resilience, self-discipline and grit as well as respect for the power of practical and vocational education, even for those judged academically bright. 'Success,' too, needs a more holistic definition than its current application in education that too often associates it mostly with exam results and league tables. Unless this happens, we will continue to break the first law of pedagogy for too many children and young people: first do no harm.

What adds up to motivation – and what takes it away?

"Many of life's failures are people who did not realise how close they were to success before they gave up."

Thomas Edison

Carol Dweck is Professor of Psychology at Columbia University. For 30 years she has been a leader in the field of motivation, personality and developmental psychology. Much of her work confirms the view of Henry Ford. He pointed out: "Whether you think you can, or whether you think you can't, you are probably right." Dweck has discovered in her research that around 40 per cent of American school children have a fixed 'mind-set'. They believe they are bright or stupid or somewhere in between, and this ranking is fixed.

This mind-set can paralyse potential. Those who believe they are 'dumb' see no point in trying – while those who are deemed clever avoid stretching themselves for fear of failing. The latter regard holding steady as better than the risk of receiving a poor grade and slipping down the ranks.

Dweck discovered that those who have been told they have a high IQ and are bright, at a crucial point when difficulties arise in their school work, withdraw instead of doing what it takes to succeed. The students who blossom are the ones who believe that intellectual skills are not naturally theirs, but assets that they have to work hard to develop. And they are determined to do what it takes. She writes: "One of the great surprises in my research [is that] the ability to face challenges is ... about the mind-set you bring to the challenge."⁵⁴

Among the methods Dweck has adopted to try to unfreeze this mind-set is a course in 'Brainology'. She instructs teachers and pupils on how the brain works; about the way in which new connections are made within the brain in the very process of learning. She explains how anything is possible – all the time. She tells the story of one child who had proved very troublesome for a lengthy period to himself, the staff

and his fellow pupils. At the end of the session he came up to Professor Dweck and said, "Miss, do you mean I don't have to be stupid?" 55

"IQ tests can measure current skills," Professor Dweck points out.
"But nothing can measure someone's potential. It's impossible to tell what people are capable of once they catch fire."

Professor Dweck and her colleague, Claudia Mueller, conducted six studies, using a range of problems for students to tackle. The studies revealed that praising students' intelligence made them feel good in the short term but had many negative effects. Most, for instance, preferred "sure-fire successes" to a challenging opportunity to learn something significant. In contrast, when another group of students were praised solely for their efforts, 90 per cent opted for the challenging learning opportunity.

Attitudes also had an impact on how pupils handled setbacks. The 'bright' students whose marks dipped saw this as proof that they were, after all, 'dumb'. The students praised for their efforts, interpreted the setback not as a condemnation of their intellect, but as a signal for more effort. "They realised that a harder task means harder work... The two groups who had started off with similar performance were now very far apart."

Dweck says: "Effort praise seemed to give students a more hardy sense of themselves as learners, a more healthy desire for challenge, and the skills to cope with setbacks. Does it mean we shouldn't praise our students? By no means," she concludes. "But we should praise the right things. We should praise the process – the effort, the strategies, the ideas, what went into the work- not the person."

Persistence – or grit – and effort, Dweck says, are also the mark of genius. "Many creative geniuses were not born that way. They were often fairly ordinary people who became extraordinarily motivated. By motivation, I mean the desire to achieve but also the love of learning, the love of challenge and the ability to thrive on obstacles. These are the greatest gifts we can give our students." ⁵⁶

Angela Duckworth and Martin Seligman looked at the importance of self-discipline on a group of 13 and 14 year olds from a socioeconomically and ethnically diverse public school, but with a high proportion of potentially bright students. Unsurprisingly, perhaps,

the researchers discovered that: Highly self-disciplined adolescents out-performed their more impulsive peers on every academic performance variable, including report-card grades, standardised achievement-test scores and school attendance." The authors conclude: "Underachievement among American youth is often blamed on inadequate teachers, boring text books and large class sizes. We suggest another reason for students falling short of their intellectual potential: their failure to exercise self-discipline ... We believe that many of America's children have trouble making choices that require them to sacrifice short-term pleasure for long-term gain, and that programmes that build self-discipline may be the royal road to building academic achievement." ⁵⁷

In a series of studies, Gene M Smith⁵⁸ asked college students to rate their peers on 42 common personality traits, based on classroom behaviour. Five general traits were identified: agreeableness, extroversion, work orientation, emotionality and helpfulness. Of these five traits, only the work-orientation factor, which Smith calls 'strength of character' (and which included such traits as "not a quitter, conscientious, responsible, insistently orderly, not prone to daydreaming, determined, and persevering") was related to school academic success.

Smith then proceeded to show that this work-orientation trait was three times more successful in predicting post-high school academic performance than any combination of 13 cognitive variables including verbal and mathematical tests and position in class.

The power of discipline, and a work-orientation trait, is illustrated by the phenomenal success of the Harlem Children's Zone (HCZ opened its doors in 2002, but its roots go back to the 1970s. Headed by the charismatic, Geoffrey Canada, it is a holistic system offering parenting support that includes 'baby colleges,' so a pregnant parent can understand the development of her baby's brain. Deshana Baker, an 18-year-old expectant mother who lives with her boyfriend, brother and grandmother in a small Harlem apartment says after one class: "A little spanking to me that was normal. They [the instructors] make a big deal out of something you were used to growing up." ⁵⁹

HCZ also offers three charter schools, each called a Promise

Academy; social services; free health services; and after-school facilities for 8,000 children and their families in a 97-block area in one of the toughest and poorest parts of New York. "To tackle only one issue while everything else in a child's universe is crumbling is a failed strategy," says Geoffrey Canada. Many of the children have chaotic family lives. Education (although funding is vulnerable) focuses strongly on social and emotional competencies, especially self-discipline and motivation, in a 'no excuses' framework. Cannon says this is all part of "trying to level the playing field." For some pupils, education involves a 10-hour day with plenty of play, affection and a nourishing diet.

A recent rigorous assessment found that the Promise Academy eliminated the achievement gap between its deprived black students and the city average for white students in maths, with similar significant improvements in other subjects. While other projects have offered parenting support and services, none have achieved this level of progress that includes academic results. (To underline the scale of the achievement, HCZ's website carries the stark message "33% - the chance that a black boy born in 2001 will go to prison".) President Barack Obama has announced plans for 20 Promise neighbourhoods run on the HCZ model as part of his anti-poverty drive.

A child at HCZ is part of an entire culture that expects a child to give of his or her best. But what makes an individual accomplish more than others of equal intelligence, measured by IQ? In a series of studies, academics Angela Duckworth, Christopher Peterson, Michael Matthews and Dennis Kelly addressed themselves to that question. The team began by examining what is known as the Big Five personality traits – openness to experience; conscientiousness, extraversion, agreeableness and neuroticism. They decided none of these predict success very accurately.

They asked individuals working in a range of professions what distinguishes star performers. "These individuals cited grit or a close synonym as often as talent. In fact, many were awed by the achievements of peers who did not at first seem as gifted as others but whose sustained commitment to their ambitions was exceptional. Likewise,

many noted with surprise that prodigiously gifted peers did not end up in the upper echelons in their fields."

The authors discovered it was not simply that some individuals, younger or older, work harder, it was also that they did so in a particular way. Grit involves long-term goals, commitment and determination. In other words, it entails even more than self-discipline and self-control. "An individual high in self-control but moderate in grit may, for example, effectively control his or her temper, stick to his or her diet and resist the urge to surf the internet at work, yet switch careers annually," the authors write.

The authors devised a 'grit scale' containing questions and statements such as "I finish whatever I begin" and "My interests change from year to year". They asked the public to respond via a website. Duckworth et al established that IQ matters, but it becomes even more potent when stamina is injected. The authors concede that their research has flaws (not least in that participants were self-reporting) but, if substantiated by further studies, their findings have policy implications. For instance, the authors say their findings suggest that children matched in talent and capacity for hard work may nevertheless differ in grit. So they suggest that children who demonstrate exceptional commitment should be supported with as many resources as those identified as 'gifted and talented'. Second: "As educators and parents, we should prepare youth to anticipate failures and misfortunes and point out that excellence in any discipline requires years and years of time on task."

In previous decades, the narrative of the gritty individual was perhaps a more vivid presence in the public's mind. Now, the celebrity culture and the seduction of instant 'overnight' success on the one hand – and the deification of genius defined solely as a person in the possession of a high IQ on the other – means that the importance of developed traits of character are much fainter figures on the landscape.

Duckworth et al report that the 19th-century scientist Francis Galton collected biographical information on "eminent judges, statesmen, scientists, poets, musicians, painters, wrestlers and others." Ability alone, he concluded, did not bring about success in any field. Instead, he believed that high achievers were triply blessed by "ability combined

with zeal and with capacity for hard labour."

Winner, in a study of prodigies, concluded: "creators must be able to persist in the face of difficulty and overcome the many obstacles in the way of creative discovery... drive and energy in childhood are more predictive of success, if not creativity, than is IQ or some other domain-specific ability." 62

Research has also addressed the issue of what happens to the intellectually able who, for whatever reason, do not exercise motivation or grit. One of the most striking examples is provided by Heckman, Hsee and Rubinstein's study (2000) of the General Educational Development programme (GED) in the US.

The GED was established to help GIs after World War II. It permits individuals who drop out of high-school before acquiring enough credits for a diploma to take the GED exam (sometimes many years after) to achieve a high-school certificate. The authors of the study observed a conundrum: even though GED recipients had an equivalent qualification to a regular high school graduate, they earned much lower wages. GED recipients had the same level of cognitive ability as high-school graduates (who do not go on to college), yet they had even lower wages than high-school dropouts without a GED qualification. Why would this be?

The authors found that GED recipients are much more likely to exhibit delinquent behaviours in their adolescence (truanting, fighting, committing crimes) than either high-school dropouts or high-school graduates. They were also less likely to hold down a job as adults. They concluded: "GED recipients are relatively qualified and intelligent individuals who lack skills such as discipline, patience or motivation and, as a result, they are penalised in the labour market." What the study doesn't tell us is why these people gave up on their abilities.

So what might destroy the development of grit? The most obvious answer is an education system that prematurely writes off the child who performs poorly in exams; who is better suited to the vocational in an non-vocational establishment; who is reared knowing he or she is labelled as one of the 'less able'. At the other end of the spectrum,

however, a desire to increase a sense of self-worth and self-esteem, a useful competency if encouraged constructively, ironically may also demotivate. It can undermine the very resources that can help a child or young person to make the most of themselves.

Malcolm Gauld, President of Hyde Schools, a network of character-based private schools and programmes in the US, wrote in 2003: "Many families and schools have become locked in the debilitating grip of the 'cult of self-esteem', a mind-set... that says: 'If we make our kids feel good about themselves, they will do great things'. In our experience, the opposite is true. If kids do great things, they will feel good about themselves. As adults, we should know that the journey to gain genuine self-esteem requires our kids to endure difficulties and overcome obstacles." ⁶⁴

In Generation me: Why today's young Americans are more confident, assertive, entitled and more miserable than ever before, psychologist Dr Jean Twenge draws together a large body of research and qualitative studies to illustrate her argument that the adulation of self-esteem, taken to extremes, can erase stamina and wipe out self-efficacy. So how has this come about? 65

Over the past 40 years, the self-esteem movement has grown hugely. Dr Twenge argues that many of its books, magazines, courses and academic studies pump out what is in danger of becoming a corrupted message: that all you need is self-belief; no effort is required; no setbacks endured.

Twenge and a colleague looked at the responses of over 65,000 college students in the Rosenberg Self-esteem scale, the most popular measure of general self-esteem among adults in the US. Between the 1960s and 1990s, students were increasingly likely to agree that "I take a positive attitude towards myself" 66 and "On the whole I am satisfied with myself". By the mid-1990s, the average student had higher self-esteem than 86 per cent of college men in 1968. The average 1990s college woman had higher self-esteem than 71 per cent of 1960s women.

Dr Twenge argues that the 1990s generation of students is the first raised to believe that everyone should have high self-esteem. And if they lack it, they can be taught it. She writes: "Most of the programmes encourage children to feel good about themselves for no particular reason." Twenge quotes one study in which 60 per cent of teachers and 69 per cent of school counsellors agree that self-esteem should be raised by "providing more unconditional validation of students based on who they are rather than how they perform or behave." The problem, she says, is if this then produces children distinguished by "a cotton-candy sense of self with no basis in reality". (If the assumption is that this is purely an American phenomenon, watch auditions for *The X Factor* in the UK to see the unreality drift in action.)

Twenge points out: "self-control or the ability to persevere or keep going is a much better predictor of life outcomes than self-esteem. Children high in self-control make better grades and finish more years of education... self-control predicts all those things researchers had hoped self-esteem would, but hasn't."

In *The Optimistic Child*,⁶⁷ Martin Seligman draws on his ground-breaking long-term study at the University of Pennsylvania to ask why, in the US, rates of childhood depression, pessimism, self-hating and 'learned helplessness' have accelerated, even as parents and schools have invested significantly in encouraging children and young people to develop self-esteem.

Seligman points out that the interest in self-esteem began in the 1960s, when America moved into a period of unprecedented wealth and power. Consumerism flourished. "Self-direction, rather than outside forces, became the primary explanation of people to do what they do.' Clinical psychologist Nathaniel Branden, doyen of the self-esteem movement, who emphasised the importance of self-efficacy, defined self-esteem as:

- 1. Confidence in our ability to think and to cope with the basic challenges of life (doing well)
- **2.** Confidence in our right to be happy, the feeling of being worthy, deserving, entitled to assert our needs and wants, and entitled to enjoy the fruits of our efforts (feeling good).

Seligman argues that feeling good has taken precedence over doing

well. Some parents are so anxious that their child should feel good that their young are cushioned from the very experiences that enable them to test their mettle, to achieve, and to develop optimism about their own ability to master situations.

"Children need to fail," Seligman writes. "They need to feel sad, anxious and angry... When they encounter obstacles, if we leap in to bolster self-esteem... to soften the blows and to distract them with congratulatory ebullience, we make it harder for them to achieve mastery. "None of these steps can be circumvented... Failure and feeling bad are necessary building blocks for ultimate success and feeling good."

The excessive promotion of self-esteem and some of its negative outcomes provide a salutary lesson on how much care is required when it comes to teaching social and emotional competencies. However, if executed wisely, boosting self-esteem can have a positive influence. It can help young people to develop a mind of their own: to display a healthy resistance, for instance, to the propaganda around body image, premature sexual activity and excessive drug taking. It can propel them to stretch themselves academically and personally.

So we have a paradox in today's system of education. At the same time as some children and young people graduate with an over-inflated sense of their own worth, others, facing difficult, deprived and sometimes dangerous home lives, come to believe they are of little value because their experience in the classroom tells them so. And yet, against the odds, some in this latter group show resilience. They do more than cope: they frequently turn their experience of adversity into a springboard for personal success. How and why they bounce back provides lessons in how to encourage that potential in every child.

Resilience in the individual

"As the twig is bent, The tree's inclined."

Alexander Pope 1731

In 2007 UNICEF – the United Nations children's organisation – published *Child Poverty in perspective: An overview of child wellbeing in rich countries.* It was the first study of childhood across the world's industrialised nations. Admitting that international comparisons are difficult, given differences in culture and custom, the report examined issues such as material wellbeing, family and peer relationships, health and safety, behaviour and 'own sense of wellbeing' (only 43 per cent of children in the UK rated their peers as 'kind and helpful', for instance, compared with 70 per cent in Scandinavia).

On a league table of 21 countries topped by the Netherlands, the UK came bottom. The Government says that the survey had failed to take into account more recent data, but still the findings are shocking. What influenced the UK's position was issues such as rates of poverty – 16 per cent of children live in homes earning half the national average wage; and concerns around the lack of stability in family life – one in four children will see their family separate before they reach 16.

Affluence, however, is not an automatic inoculation against unhappiness and adversity. In a more recent study, 150,000 children took part in an annual survey conducted by Ofsted, called Tellus. ⁶⁸ The study gives every local authority in England a score on five measures: the emotional health of children (how many friends they have and how much they feel they can talk to them about problems); levels of bullying; participation in sports and volunteering; substance misuse; and how satisfied young people are with access to parks and play areas.

Teenagers in Knowsley, Merseyside, one of the most disadvantaged areas of the country, scored highest in the friendship ratings and were the most emotionally secure. Cheshire, Lancashire, West Yorkshire and Hull also scored highly. Predominantly well-off Richmond in south-

west London reported the lowest levels of wellbeing.

So what might help children and young people to navigate through difficult periods in their lives? An army of researchers has been working for several decades to establish the traits and circumstances that can make a difference to a child's future. Take, for instance, the life of one child. As a five year old, he watched helplessly as his younger brother drowned. The same year, he was struck by glaucoma and his family were too poor to buy the medical help that could save his sight. His parents died during his teens. He found himself in a state institution for the blind. As an African American he was not permitted to access many activities within the institution, including music. Yet, later, this young man became a world-famous musician whose name was Ray Charles. ⁶⁹

Charles' adult life involved many battles, not least with drug addiction, yet again and again he showed resilience — and grit. Talent alone is not enough. His sense of self-worth might, at times, have appeared frail, but the fact that it existed at all and that it exists in young people who have faced severe trauma and loss is the source of a growing body of international research. How much is resilience predicted by genetics, education, parenting, mentoring, temperament — and luck? What triggers resilience? How is it defined? And can it really be 'taught' in the classroom?

Resilience has been given a number of definitions. They include: a "dynamic process encompassing positive adaptation within the context of significant adversity" ⁷⁰ and "a capacity for adaptation along appropriate developmental pathways, despite disruptions such as family breakdowns." ⁷¹

Many of the pioneer writings in the 1940s discussed children born with the trait or characteristic of resilience, a gift of nature. These children were described in terms of 'invincibility', or as 'supernormal' and 'super kids'. Resilience and 'grit' were portrayed as a mix of birthright and bravado, later personified in the famous American test pilot, Chuck Yeager, who possessed 'the right stuff'. Psychiatrist George Vaillant, author of *The Wisdom of the Ego*, 73 pointed out that such myth-making did a disservice to the experience of children who don't arrive resilient into the world. They become resilient – often after they have been deeply hurt.

In *Out of the Woods: Tales of resilient teens*,⁷⁴ Hauser, Allen and Golden explain: "It is not the illusory invulnerability of resilient children that should command attention and respect, but their powers of self-healing. And these are powers that vary with circumstance: people's style of adaptation changes and evolves over their lifetimes.

"This truth is so important that although the new term first appeared in the literature as resiliency, it was later modified to resilience ... turning away from the earlier implication of a permanent endowment."

Since the 1960s, there have been dozens of studies undertaken and any number of books published on resilience, one of the aims of which is to create a resilience-based model of practice, to act as a preventative tool. Some of the most influential early empirical studies were conducted by Norman Garmezy and Michael Rutter (now Professor Sir Michael Rutter) who, for instance, conducted a long-term survey of 200 children in the US in the 1980s and 1990s. They discovered that the majority of children who experienced adversities did not develop the expected negative outcomes. So what protective factors were at work? Garmezy (1993) identified three broad sets of variables that have been seen to operate as protective factors in stress-resistant children.

- characteristics of the child such as temperament, cognitive skills and positive responsiveness to others
- > families marked by warmth, coherence and structure
- > the availability of external support systems.

Two decades earlier, in 1973, Garmezy, based at the University of Minnesota, had set up the world-renowned Project Competence studies of risk and resilience. It involved a collaboration across disciplines, drawing, for instance, on clinical and developmental psychology, behaviour genetics and psychiatry. Project Competence is a longitudinal study of a 'normative cohort' of 205 children and their families recruited in the late 1970s from an urban school district. The group was representative of the school population drawn from a diverse socio-economic background and 29 per cent had an 'ethnic/racial minority heritage'.

The participants were followed for more than 20 years with a 90 per cent retention rate. Project Competence is now headed by Professor Ann S Masten. In a chapter in *Resilience and Vulnerability*, ⁷⁵ Masten and her colleague, Jenifer L Powell, argue that resilience is an inference about a person's life that requires two fundamental judgements:

- > a person is 'doing OK'
- > there has been significant risk or adversity to overcome.

The short list of protective factors on which resilience studies appear to be converging, according to Masten are: "Connections to competent and caring adults (other studies have found that resilient young people may opt to break away from a parent whom they judge to be damaging); cognitive and self-regulation skills and positive views of self; and the motivation to be effective in the environment."

Masten coined the phrase, 'ordinary magic' to describe resilience because, she argued, "individuals are capable of astonishing resistance, coping, recovery and success in the face of adversity, equipped only with the usual human adaptational capabilities and resources, functioning normally... The conclusion that resilience usually arises from the operation of ordinary adaptive processes rather than extraordinary ones provides an optimistic outlook for intervention."

The power of this 'ordinary magic' is revealed in one extraordinary finding that has been consistent for the past two decades in resilience studies. Namely, most children (around 70-75percent) make it, no matter how chaotic and deprived their family lives. Even in the worst-case scenarios, when children experience persistent trauma, still half overcome adversity and achieve good developmental outcomes.⁷⁶

Emmy Werner and Ruth Smith followed nearly 700 children growing up with risk factors (a third faced multiple risk factors). As they grew older, they became increasingly like their peers without risk factors. By midlife, 'They were in stable marriages and jobs, were satisfied with their relationships... and were responsible citizens in their community.' Only one in six in middle age was struggling with a range of problems

including domestic violence, serious mental health problems and/or low self esteem.

It seems risk factors do not predict negative outcomes - except for 20-49 percent of the high-risk population. Protective factors provide buffers that make a more profound impact on the life course of children who grow up under adverse conditions than do specific risk factors or stressful life events. They appear to transcend ethnic, social class, geographical and historical boundaries, write Werner and Smith.⁷⁷ The story of resilience in children can afford to be more optimistic – but that is no reason for inaction, as the findings of the Minnesota Parent-Child Project remind us.

The Project is one of the classic longitudinal studies in developmental psychology. It has followed 180 infants and their parents from the sixth month of pregnancy into adulthood, living in urban poverty. The children, many born to very young mothers, are now moving into their 30s, and the study is ongoing. It is about epigenesis, the way in which biology and experience work together. In the study, 61 per cent of the parents were unmarried; 59 per cent of mothers had completed high school; 80 per cent were white; 21 per cent of the children were considered a risk. Twenty years after the study began, 85 per cent of the original group were still involved.

On the basis of 30 years of research, L Alan Sroufe and his fellow psychologists in the study believe that while "nothing is more important than the care – or lack of it – received in early years, individuals are impacted by their entire history of cumulative experiences and how that interacts dynamically with the circumstances in which they find themselves."

The psychologists leading the Minnesota study predicted which children, before they entered education, would eventually drop out of school and which would rise to the challenge. Years later, their predictions proved correct. By the age of three, some children were strongly developing non-cognitive skills, while others were up to 40 points behind in their developmental abilities.⁷⁸

What protective or competence-enhancing factors might help to

build resilience in children so far behind in their developmental abilities? Arnold Sameroff, Leslie Morrison Gutman and Stephen Peck argue that there are no universal protective factors. Instead, these may vary according to the age of the child and developmental outcome being targeted. "Paradoxically, the promotive processes in one context may prove to be risky in another," they say. For instance, democratic authoritative parenting may be a successful way of rearing white middle-class children, but young people who live in more dangerous environments may benefit from higher levels of discipline and parental control.

The three also point out that however valuable resilience might be as an asset, some odds it can't overcome. 'High-efficacy' adolescents in high-risk conditions consistently did worse than low-efficacy youth in low-risk conditions. The researchers conclude: 'The major implication of multiple-risk models is that interventions need to be as complex as development itself.' ⁷⁹ This view echoes that of philosopher, psychologist and educational reformer, John Dewey's belief that learning is the interaction between a young person and their environment, which means that the experience is different for each individual.

Psychologist Lev Vygotsky's work has also played a role in resilience studies. In his theory, instruction is most efficient when others can help learners to complete a task near the upper end of their ability, in the 'zone of proximal development'. As the learner moves to higher levels of ability, support is gradually withdrawn. A third major idea is Bandura's social learning theory. It emphasises the importance of observing and modelling the behaviour and attitudes of others, and of providing situations that allow learners to use or practice that behaviour.

"These are the basic ideas of youth development," Cathann Kress writes. So "Some things cannot be taught but must be learned through experience, experiences are transformed by the individuals who participate in them, development occurs when a person is at a level that she or he can only achieve with help from another person, and we can learn from observing others and their actions."

Genes may also play a part in this process. In recent years, biological scientists have proposed that resilience is an interplay between particu-

lar genes and the environment – termed GxE. A particular variation of a gene helps to promote resilience in those people who have the gene, acting as a buffer against adversity. If adversity is absent, the gene does not express itself in this way. Professor Sir Michael Rutter has opened a GxE research centre at the Institute of Psychiatry in London that, unusually in research, studies the environment and genes in tandem. "We now have well-replicated findings showing that the genes play a major role in influencing peoples' response to adverse environments," Professor Sir Michael Rutter says, "But the genes don't do anything much on their own." 81

Another surprising feature of resilience is its ability to lie dormant in an individual for years before being triggered into life, as examples from the Core City longitudinal study that spanned more than 50 years, illustrate. The study was initiated in 1940 when Sheldon and Eleanor Glueck of Harvard University began a major piece of research on juvenile delinquency in teens from Boston. The control group for the study comprised 456 boys who were mostly poor but assessed as not seriously delinquent. These boys were studied by a multi-disciplinary team of physicians, psychologists, psychiatrists and anthropologists. The participants were interviewed at ages 14, 25, 32 and 47 – and in their 50s and 60s. The Core City group had a mean IQ of 95, and 48 per cent graduated from high school.

In 1974 the study of this control group was taken over by psychiatrist George Vaillant. In *The Wisdom of the Ego*, published in 1993, Vaillant used this study to probe different aspects of resilience. He analysed what caused resilience to flourish at a particular time in an individual's life – often years after the trauma had ended. Mike Mulligan, for instance, grew up in a tenement in the 1940s with no heating or bathroom. He and his siblings were repeatedly excluded from school because of lice, impetigo or because they were unwashed. One note from a family welfare agency read, "Reverend X feels family is a hopeless case. Mother is a habitual beggar." The school superintendent was also scathing: "This is one of the worst cases of utter filthiness ever seen... conditions wretched, beds filthy, children dirty and half-clothed."

Hospital records said the parents were "constitutionally inferior but not feeble-minded". Mike Mulligan's father was a fairground worker. His mother begged because the couple were too poor to afford food. In spite of the chaos and dirt, both Mike's parents appeared to invest time and love in their children. Mike had a low IQ. He went to Sunday school and sang in the choir. He left school at 16, joined the army and fought in Korea. He was discharged with what now would probably be diagnosed as post-traumatic stress disorder.

His medical report said that he showed "immaturity, poor judgments and attempts to control the environment by means of a superficial suicide gesture." In 1952, he received extensive electroconvulsive therapy and was discharged from hospital as a 'schizoid personality'. Through the 1950s, Mick drifted from job to job, lodging house to lodging house, and he drank excessively. In 1956, one landlady described him as 'slightly touched'.

In 1960, Mike's life changed. He married a primary-school teacher and acquired a steady job. He lived in a home that was clean and neat. An interviewer for the study reported: "Mike's easygoing attitude was impressive and so was his ability to shake off problems yet not ignore them. He was... an interesting and enthusiastic man to talk with." Asked what pleased him most about his wife, Mike said: "Just her company". In addition, he had a boss in his tool and dye plant that he liked and wanted to please. He said that he had "learned a great deal from his boss."

Over the years, Mike had become involved in "keeping 250 kids off the [street] corner", working with Little League football as a volunteer and umpire. By the age of 58, he smoked and drank very little. He was active in the community and he had a good social life. He and his wife had put their children through college. In terms of his Korean experience, Mike said: "I'm pretty well normal now". The interviewer, who knew nothing of Mike's past, wrote: "He is a fascinating study in the evolution and maturation of an adult who was probably rated pretty poorly for mental and emotional health 20 years ago."

What caused Mike to turn his life around? Possibly the protective factors laid down as a foundation in his childhood in the form of

two parents who loved him – albeit in a context of which the authorities did not approve. What acted as a catalyst to those latent skills was probably his marriage and his ability finally to hold down a steady job, rewarded by a boss he admired. It wasn't just Mike's ability to belatedly make sound relationships that mattered – he also had the sense of agency to utilise them in the best way he knew how, to turn his life around. "The ability to metabolize, as it were, other people once they are found." The Core City Study also shows that resilience is possible even without secure early attachments. Robert Hope, for instance, saw his family was a highly destructive force. He had a functioning IQ of 72. His teacher described him as "lazy, depressed, unsocial and shy". Hope told a psychiatrist on the Core City team: "I can't think of a thing I'm good at." His mother was classed as 'mentally incompetent'. As a teenager, Hope said he hated her. She, Hope's father and two sisters were all alcoholics.

Hope began drinking at 15 and didn't stop until he was 35. He drifted from job to job, but from middle age, his attitude to himself, constantly self-critical, had altered. He remembered his school days as an agonising time of unhappiness and failure. In retrospect, he recalled that his mother was "probably schizophrenic... I look back on the way I was and [I] hate me. But now I know I'm good."

Hope's turning point was his children. He said they made him "feel like somebody... They are aware of love in this home." At 60, he had the best job he'd ever had as an electronics customer service technician. He enjoyed helping others and learning new skills. Teetotal for 25 years, he exercised for two hours a day. "I had always hoped to be someone special," he said. "But now I'm happy with what I've got."

Vaillant writes: "In his adolescence, he had believed that 'the god of the neighbourhood was physical strength, which I did not have'. Now, he realised that courage was the more important; courage was a quality he knew he did have – and in spades. But how does one learn that it is not the size of the dog in the fight [that counts] but the size of the fight in the dog? How does one learn to have compassion for oneself?"

In an education system attuned to maximise an individual's social

and emotional competencies, perhaps Robert Hope would have been given a better start in life, and three decades would not have been lost drifting in a sea of alcohol. The price to Hope, and to society, until his own resilience enabled him to find an anchor, would not have been so high. The Core City sample also acts as a reminder that men and woman labelled as failures because of their low IQ, also have the ability to flower. Their right to achieve their full potential ought not to be denied.

Eleven of the Core City men had childhoods particularly laced with multiple disadvantages – poverty; foster care; delinquent father; overcrowding; alcoholic parent; bad health – and low IQs. At age 25, all seemed 'broken beyond repair'. Fifty years later, eight of the 11 had turned their lives around. They had 'self-righted'; resilience was their common trait. Vaillant says that their lives had also often been "blessed with a modicum of joy". "Man is born broken," he writes, "He lives by mending."

"We all know that Humpty Dumpty can fall off a wall and be shattered beyond repair," Vaillant writes. "The second sort of unexpected outcome has more to teach us: the disadvantaged youth [who] becomes a loving and creative success... We have much to learn from once-fragmented Humpty Dumpties who 10 – or even 40 – years later become whole."

One of the mysteries of resilience is its timing: how and why the 'bounce back' begins at a particular point in an individual's life. Why in Mike's case, for instance, did he decide that meeting his wife was an opportunity that at that moment in his troubled life, he could not reject? Is it possible to prepare children and young people better so they can identify and seize these potential turning points before the decades of destruction take their toll?

In *Out of the Woods: Tales of resilient teens*, psychiatrist Stuart T Hauser, psychologist Joseph P Allen and writer Eve Golden give some insight into how the often-frail bridge between a damaged past and a better future might be built; frail because resilience may come and go. The book follows the trajectory over 20 years of 67 patients who, as teenagers, spent weeks, months or longer in a locked ward of High Valley Hospital, an American psychiatric hospital. Analysing the series

of interviews the young people give over the years, as they move into adulthood, the authors track the development of certain social and emotional skills. Nine of the teenagers eventually turn their lives around: resilience observed in action.

Drug abuse, theft, assault, truancy and sexual promiscuity were widely practised amongst High Valley patients; many came from highly dysfunctional families. In the early interviews with the teenagers as new arrivals in the hospital, the authors say that are trying to spot "hints of processes that might allow the turnarounds of resilience to occur... even before their resilience is apparent... in the resilient kids, self-assertion and the communicating and negotiating skills that go with it gradually replace less useful forms of aggression – violence, revenge, self-destructiveness, defensiveness, blame."

The nine young people negotiate for themselves not one but a continual series of turning points. The authors found that all nine displayed three social and emotional competencies that relate back to Goleman's list referred to earlier in this paper. They are:

Reflectiveness – defined as curiosity about one's thoughts, feelings and motivations, and the willingness to try and make sense of them and handle them responsibly;

Agency – that is the conviction that one can intervene effectively in one's own life; and

Relatedness – engagement and interaction with others is valued as a tool to be developed, "even when there are no helpful others around". Resilience studies often refer to the 'one good relationship' that acts as a catalyst and an opening to a better life. What Hauser, Allen and Golden probe is how such relationships become available to their resilient teenagers – and how they make use of them in several ways; how they treat these relationships as a potential life raft made up of more than love and friendship.

In the interviews, over years, for instance, the authors pick up that the resilient teenagers and adults "engaged in minute and persistent observation of relationships... even when they are not actively courting connection, they are watching and listening.

"When a sufficiently tempting relationship comes along, they are well positioned to take advantage of it.⁸³ In this realm, too, they experiment; they devote energy and attention: they learn... In their hunger for relationship they are looking for more than selfish advantage... These stories suggest that mastery of human emotional and social interaction may be the critical culmination of all the other aspects of resilience. It allows the kids to find ways of connecting with others; these others then pull them into 'healthier contexts' and give them access to the new satisfactions that they explore as young adults. We exist in a material world but we live in a relational one."

Recognising the seeds of critical life skills does not make it any easier to offer opportunities for their development. Hauser, Allen and Golden point out, for example, both autonomy and time for reflection are a rare privilege for adolescents. "Our own research suggests that excessive constraints on the autonomy of adolescents undermine not only their efforts at mastery but also their capacity to reflect on their own thoughts and relate well to others.

"Reflection is a quieter habit than agency and a more private one than relatedness but neither of these two desiderata can flourish to the full without it... And, like them, it is fragile... we have to ask how our current structures for raising teens may be failing to foster their reflective capacities.

"Reflection in adolescents is almost as widely distrusted in our society as autonomy... what does the kid do all alone in his room for hours?... We fall back on the same old solutions, hustling teenagers into activities, jobs and 'interests' more to keep them busy than because any real challenge is offered, and so we erode still further their chance to connect with themselves and discover their own needful pursuits."

The authors point out that reflection, agency and relatedness are 'intricately intertwined'. "The growth of one encourages the flowering of the others; to suppress one is to stunt the rest. Honestly recognising your feelings as your own is a prerequisite to taking responsibility for

them and acting effectively upon them. Unless you take responsibility, it's hard to feel like a person who can make a difference.

"Responsible behaviour is both a cause and a result of these skills; so are humour and curiosity and persistence – and good relationships, which reward emotional growth but depend upon it too, and which are one of the biggest and most important mastery challenges of all. Reflection, agency and relatedness are the seeds of change."

An education system fit for purpose ought to have plenty of room in which these 'seeds of change' can flourish. In *Out of the Woods*, the way in which the lives of the young people unfold illustrates their power – and the devastation when they are absent. Charlie, for instance, as he grows older becomes more and more bogged down in his own inertia: in his view, he has no control over events in his life, so nothing he does matters. In one early interview, he says, he 'didn't think twice' when he was 'conned' into taking drugs again. It's not his responsibility.

Jeff's father committed suicide and he was admitted to High Valley after highly self-destructive behaviour. Asked as an adult why his parents might have behaved as they did during his childhood, he has no reflective capacity. "That's an almost ridiculous question... people are people," Jeff says. In contrast, Rachel comes from a family in which there is counterfeit intimacy and little contact with 'outsiders'. She self-harmed and loathed school; she chose to marry at 16 and become a mother at 17. By 25, she is divorced, settled in a healthy relationship with a woman, studying for a degree and raising her son. Rachel believes in reflection: "I really wasn't thinking that much. I was just doing things – and that, I think, was wrong."

The authors point out that: "The resilient kids display what psychologists call an optimistic bias, a phenomenon closely linked to a drive for mastery. They focus on the upside of what they are doing... Optimistic beliefs about how much we can change our environments not only inspire action but also soften the inevitable failures and setbacks that accompany any bold course...

"Unlike their more passive counterparts, the resilient kids devote a lot of energy to making potential control real. So striking is this difference that is sometimes tempting to wonder whether this might be the trait that ultimately distinguishes resilient people."

The authors continue: "From that perspective, the surprising stories are those of the others, the kids whom, when desperate, give up... Society's approach to troubled teenagers may stifle their drive for mastery – their willingness to come back and try again..."

So research tells us that while some children and young people are able to 'beat the odds' and achieve a level of wellbeing because features of their past and present life support them against adversity,⁸⁴ what also boosts their capabilities, including resilience, is the quality of their relationships and access to appropriate support.

How this works in practice is illustrated by the case of Sharif Bey from a deprived area of Pittsburgh USA. In 1987, as a high school pupil interested in ceramics, he made his first visit to Manchester Craftsman's Guild (MGC is described in more detail in the annex), a local visual arts programme, for inner-city children and young people. He eventually became a distinguished Fulbright scholar, is now studying for his doctorate and teaches Drawing and Contemporary Concepts in Creativity. He says of MGC, "I found an environment that wasn't institutional, like school, but it wasn't like hanging out at the mall either. It offered a different kind of structured environment. I was given 35 pounds of clay on that first day to sculpt with and the idea of having unlimited resources was incredible to me... It's hard to achieve success when you never leave the neighbourhood. Until I came to the Guild I was a reclusive minority kid and did not speak to white people outside of school. Now I was working side by side with an artist all day long, sharing experiences. Art creates a commonality that breaks down the power structure found in conventional classrooms. I started to construct a social environment at the Guild, and suddenly I was caught up in a strategy that pushed me to become something... I discovered the sense of trust that comes from knowing someone has confidence in you." 85

In the UK, over 40 per cent of pupils leave school with no or poor GCSEs and 1.4m children, in 2005, skipped school. Of these, 215,000 were 'persistent absentees' who absented themselves for six weeks or more. ⁸⁶

Out of school, some of these young people may show resilience in a negative setting, thriving, for instance, in a black economy or as part of a gang. However, what these statistics also tell us is that an opportunity is being lost in education to cultivate positive assets and competencies that equip children to make the most of their abilities – an investment that lasts for life.

The Nuffield Review of education and training for 14-19, considering a curriculum for the 21st century, was established in 2003. Since then, it has heard evidence from a significant number of sources and produced over 50 papers. Much of the material has been distilled into a list of 'statements' which further chart the failures of the present system and include:

- > the impoverished language of education in terms of 'performance targets', 'efficiency gains'... and 'academic/vocational tracks'
- student ignorance of key issues and essentials for intelligent living in today's society
- the low status given to the more practical and experiential modes of learning
- the impact of an examination-driven system on the quality of learning
- the failure to engage so many young people in the educational enterprise. 87

When we deny children and young people the kind of educational ecology in which they can 'grow' their capabilities, we are also denying them their freedom. Amartya Sen, who introduced the basic notion of capability in 1979, described it as "a kind of freedom; the substantive freedom to achieve alternative functioning combinations (or, less formally put, the freedom to achieve various lifestyles)."

Social and emotional learning, as part of well-attuned academic and vocational teaching, is an indispensible tool in developing the capability and resilience in every child. But can resilience be taught – even to those most vulnerable to stress? Can what Bartone calls 'personality hardiness', a sense

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that life is meaningful, that we can choose our own futures and change is interesting and valuable, 88 be fostered in a school environment?

Uri Bronfrenbrenner ⁸⁹ argued that in the field of resilience, instead of seeking out risk factors, what is required is a profound change to the system or systems that are supposed to support the child, but may be having the opposite impact. In that context some of the most valuable lessons about the support structures that can nourish resilience have come from the experience of African-American schools experiencing profound social injustice during segregation – as the next chapter briefly explores.

Resilience – lessons in education

In the 1920s, Langston Hughes published a poem called Mother to Son: a clarion call to exercise resilience at a time when being Black in the US carried a huge burden of discrimination. The mother tells her son that her life has been 'no crystal stair'. She has had 'tacks' and 'splinters' along the way but she is 'a-climbin" up the ladder regardless. She urges her son to climb upwards, too. She tells him: "Don't you turn back. Don't you set down on the steps/Cause you find it's kinda hard/Don't you fall now."

What the poem conveys is not just the importance of resilience and grit, but also a fundamental philosophy that no one accomplishes anything completely on their own. 90 In the segregated schools of the South there was a shortage of basic materials; African-American teachers were poorly paid, but research indicates that in addition to the qualities of reflectiveness, agency and relatedness witnessed in graduates of High Valley Hospital, what many of these teachers also displayed was a sense of collective mission. This was shown not least in disseminating the importance of a sense of agency to their pupils and making what they learnt relevant to the disadvantaged lives they were living.

"If school is about preparing students for active citizenship, what better citizenship tool than the ability to critically analyse society?" Ladson Billings asks. 91

In a range of essays in *Resiliency Reconsidered*, the settings that encouraged pupils and teachers alike to develop their social and emotional competencies and resilience in particular are described. The settings most commonly featured are:

- > a sense of belonging⁹² that includes teachers with whom the pupils can identify in terms of class, race and culture
- > positive staff assumptions and expectations of pupils
- strong and genuine pupil participation and collaboration in the running of the school

- > support for constructive relationships
- > recruitment and support of teachers who are positive about their jobs, have their own resources of resilience and feel valued.

These are also among the attributes of the best schools functioning today – as is the attitude described by Loyce Caruthers, ⁹³ who points out that 40 years of research confirms what common sense would indicate, namely: "Students become capable, productive and compassionate persons when we identify and nurture their capacities through resilience education rather than give attention to their deficits."

In addition to the features described, research also tells us that the development of resilience in a educational establishment requires transformational leadership. This is an individual who can also convincingly and continually construct a narrative for staff, pupils and parents that makes the acquisition of resilience and other goals a meaningful endeavour – no matter how high the odds.

Military psychologist Paul T Bartone explains how the meaning that people attach to their own place in an experience can be hugely influential (and, conversely, the damage caused when a person believes there is little or no meaning: they are literally 'a waste of space'). "It would seem that peers, leaders, indeed the entire unit or organisational culture can influence how experiences get interpreted," Bartone writes. ⁹⁴

"If a stressful or painful experience can be cognitively framed and made sense within a broader perspective that holds that all of existence is essentially interesting, [is] worthwhile, fun, a matter of personal choice, and providing chances to learn and grow, then the stressful experience can have beneficial psychological effects instead of harmful ones... This process itself... could also be expected to generate an increased sense of shared values, mutual respect and cohesion."

Bernard Bass and Bruce Avolio further expand on what is meant by a transformational leader: "Transformational leaders behave in ways that motivate and inspire those around them by providing meaning and challenge in their followers' work. Team spirit is aroused. Enthusiasm and optimism are displayed. The leader gets followers involved in envisioning attractive future states. The leader clearly communicates expectations that followers want to meet and also demonstrate commitment to goals and the shared vision." ⁹⁵

In contemporary studies on African-American students, schools that were classed as 'effective' had principals regarded as 'mavericks' or 'risk takers,' who were far more collaborative and who "buffer their school from external influences"... and exercise 'creative insubordination' which means "ignoring external policies that might infringe upon a supportive environment for students and teachers." ⁹⁶

A study into school leadership in the UK commissioned by the then Department of Education (2007) from PriceWaterhouseCoopers, argued that school leaders in the UK need sufficient emotional intelligence to build 'broader and deeper distributed leadership'. Most heads believed that that was what they were doing – but their staff disagreed. The report said: "Many teaching and support staff did not feel engaged and involved."

One other asset invaluable to the cultivation of social and emotional learning and resilience, is the collaboration of parents and carers. Berry Mayall's research for the UK's Primary Review underlines the importance of home. "Children are active agents in learning, in interaction with siblings and parents. They learn through apprenticeship the social, cultural and moral order of their home and their responsibilities as moral agents... They have more chance at home of being respected than anywhere else..." "97

For some disadvantaged children in chaotic families, however, this 'home grown' education is denied and the cooperation of parents may not be feasible, not least because the adults' own experience of school may have been entirely alienating. But a range of projects is showing how alliances can be forged. The Learning Dreams Project, for instance, encourages family engagement by supporting the parents' involvement in their own educational dreams.

Developed by social work senior fellow, Dr Jerry Stein, it began in 1996 with 30 families in a Minneapolis public housing community. At the end of the three-year pilot, the truancy rate among children in the scheme had dropped to zero and 100 per cent of parents were involved in the neighbourhood school. Now operating in several sites, a community-based neighbourhood educator helps parents to realise their own learning dreams – running a small business, becoming literate, achieving a qualification – and creates a plan to support the learning of the parents' children, including helping learning in the child's school.

How this links to social and emotional competencies is perhaps glimpsed in the quote of one mother who dreamed of becoming a writer. She now attends a creative writing course. Dr Stein says: "She recently turned to me and said, 'You know when my kids say they have homework now, I say, 'So do I', and we sit down together. They used to complain but now they don't, and we just all work together." ⁹⁹

Many educational systems want to spot the children who might be at risk, so as to help them earlier. The intention is well meaning but the issue is how they are helped. ¹⁰⁰ In the US, as a result of the No Child Left Behind Act (2001), for example, schools are encouraged to provide support for every student so they achieve a proficient level in maths and reading. What has emerged, as in the UK, is 'teaching to the test'. Children are taught with an emphasis on the academic. The 'at risk' category has broadened to include groups of children and young people who are racially and culturally different, who do not fit dominant ways of thinking and behaving ¹⁰¹ - what is 'different' is in danger of being classified as deviant. (This also applies to some treatment of black and minority ethnic children in the UK – and arguably to white working-class boys, referred to in the next chapter).

This focus on those who are 'at risk', often a euphemism for failing, has a negative impact on the culture of schools and the nourishment of social skills in a number of ways. The US Department of Education, for example, examined 27 models of school reform, funded by the National Institute on the Education of At Risk Students. The Department concluded that only a third stressed the importance of social skills.

Since 'belongingness' is important as a buffer for the development of a resilient child ¹⁰² – how can that be possible in a setting in which students are aware they are regarded as inadequate and a 'problem'?

Tierra Freeman, Lynn Leonard and Jennifer Lipari write that " when students saw their academic and social environments as alienating (perceiving teacher/peer discrimination) or not meeting their developmental needs for self-determination, students were more likely to report feelings of anger, depression as well as misconduct." ¹⁰³

In 1997, in a study of six African-American students in an inner city, Carla O'Connor gave an example of how effective education can be — in spite of adversity — when the lessons of social and emotional learning are well implemented. She says these students were aware of society's poor expectations and their lack of status. However, they did not express the customary view of the non-resilient young person, that 'nothing can be done.' "At the personal level they not only had knowledge of their own competencies but could imagine themselves engaging in practices that would allow them to negotiate external constraints en route to upward mobility. They [had] additionally learned that ... subjugated individuals could challenge, modify and transform structures that oppress them. In other words, they had to reason to imagine that not only could they work effectively within the system, but also that they could potentially change the system — making it more responsive to their needs and interests." 104

O'Connor's young men powerfully illustrate Masted's concept of resilience as 'ordinary magic'. If this magic is to be made available to every child then we need to pay more attention to the ecology of the school and the demand for transformational leaders and more innovatory ways to involve not hard-to-reach but sometimes easy-to-ignore parents. Paradoxically some parents also need to let go. One study estimated that in this risk-averse society, the opportunities for children to 'roam' have been reduced by 90 per cent in 20 years: the 'free-range' child¹⁰⁵ is almost extinct in the US and the UK.

Yet it is the free-range child who finds the opportunities to hone his or her life skills, learning to cope with risk, failure and success. Adversity isn't always to be avoided; it is also a necessary prerequisite to building resilience.

'It's all your own fault!' - education and culture, class, race and gender

It is now more than 30 years since Pierre Bourdieu's classic work showing why expanding education would be unlikely to increase social mobility. He argued that qualifications would act more as markers than as genuine signs of merit, and his work on culture¹⁰⁶ showed how cultural skills could be used to differentiate and exclude.

Swidler, drawing on Bourdieu, ¹⁰⁷ writes: "If one asked a slum youth why he did not take steps to pursue a middle-class path to success... the answer might well be not, 'I don't want that life', but instead, 'Who, me?' One can hardly pursue success in a world where the accepted skills, styles and informal know-how are unfamiliar. One does better to look for a line of action for which one already has the cultural equipment."

Many poor parents fail to motivate their children to succeed in school not because they lack competencies – but because they don't give priority to those skills that are the accepted currency of 'high cultural status'. ¹⁰⁸ In *Class and Conformity*, the result of a 10-year study at the American National Institute for Mental Health, Melvyn Kohn analysed the values that middle-class and working-class (white) parents would most like to see in their children's behaviour.

Parents from a lower socio-economic group valued obedience, neatness and honesty, while middle class parents emphasised curiosity, self-control, and consideration. Kohn writes: "Middle-class parents are more likely to emphasise the children's self-direction and working class parents to emphasise their conformity to external authority. Self-direction focuses on internal standards of direction for behaviour; conformity focuses on externally-imposed rules." 109

Again, Lareau (2003) contrasts the 'concerted cultivation' methods of middle-class parents with the 'accomplishments of natural growth' approach of parents in other social groups. The middle classes provide many activities for their children, and continual parent-child negotiation cultivates social skills (that teachers rate most highly) and enable

the young to perform better in life – even though they may not be happier or more well adjusted as children. This difference is reflected in vocabulary. A child in a professional family is likely to have heard 45 million words by his or her fourth birthday; a child from a deprived background will have heard 13 million. 110

Samuel Bowles and Herbert Gintis argued in 1976 that these different values were reflected in the hierarchy of schools. "Thus... high school, vocational and general tracks emphasise rule-following and close supervision, while the college track tends towards a more open atmosphere emphasising the internalisation of norms." ¹¹¹

This division is reinforced by the 'hidden curriculum'. ¹¹² Dr Mark Rosenman argues that the process of education has more power than its content. He writes: "The socialisation process in schooling... actively legitimates the dominant socio-economic order... schooling renders its students the children of the status quo, allowing only for linear progress and evolution along seemingly predetermined and immutable paths."

Today, while there are many highly-creative schools and educational initiatives (some of which are referred to at the end of this paper) that are successfully challenging the notion of 'predetermined and immutable paths' – research confirms that the power of the hidden curriculum persists, not least in prematurely writing off large numbers of children as failures or categorised as vocational material, and therefore inferior, because they are 'good with their hands'. (In France, by contrast, a pupil can be academically bright and on a vocational course.)

This socialisation process harks back to Victorian times. Learning was seen as fitting people for their role in a fixed, class-conscious, Christian society: "the rich man in his castle, the poor man at his gate". H G Wells called the 1870 Education Act as not so much "an Act for a common universal education [but] an Act to educate the lower classes... [for employment] on lower class lines." The Victorian influence is reflected again in the 1944 Education Act, intended to provide a workforce for the post-war industrial economy. It was estimated the country would need 80 per cent manual workers and 20 per cent clerical and professional staff. ¹¹³

Education in the 21st century in the UK is divided into two areas. One is academic and mainly cognitive learning – literacy, numeracy and acquiring a body of knowledge about a range of subjects. Success is measured in a series of tests culminating in GCSEs, AS and A levels, a new diploma qualification, and degrees.

The second system is vocational learning, regarded by many as a second-class education for the less intellectually able. In this, the emphasis is learning by doing, reflecting practice in industry and the workplace. Success is measured through NVQs and a bewildering array of qualifications. In a few of the professions, for instance, medicine, army and the law, the line between the academic and the vocational is blurred. Learning is also by doing, taught by the more experienced, the 'masters' - a fusion the Studio Schools Trust aims to spread more widely in its schools. These will draw on international examples such as Denmark's Production Schools, as well as experience in the UK and the US. They will enable a broad range of students of all intellectual abilities aged 14-19, to respond to customised teaching that includes the development of social and emotional skills. Following the model of the traditional studio, they will integrate work and learning so far as possible, so that new knowledge and ideas can be quickly put into effect in real contexts. Much of their work will be done through practical projects, including running businesses, and making learning as 'hands-on' as possible. Critically, Studio Schools are an attempt to break through the traditional divide between academic highly valued education and vocational or 'second best' training.

It's clear that as the pace of technological and organisational change accelerates, more people will require transferable skills and the personal resources to respond to continual adaptation. An ability to work collaboratively and creatively is already in more demand. 'Rule following and close supervision' is an insufficient grounding for employment in the 21st century, no matter how menial the job.

Changes in the global economy are having a particularly hard impact on working-class boys. Heavy industry, the mines, the sea and low-skilled jobs are no longer open to them. In the classroom, boys make up 70 per cent of those with special educational needs; 72 per cent of dyslexics and 88 per cent of those with behavioural, emotional and social needs. And they lack male role models in the teaching staff – 85 per cent of primary school teachers are female. Among working-class boys there is growing evidence of 'a corrosive poverty of aspiration'. 114

The SEAL guidance document warns that in social and emotional learning what suits girls may not work with boys: 'teachers and practitioners will need to be sensitive... to the fact that the expression of emotion, talking about feelings and being seen to be empathetic and caring tend to be seen as feminine traits with the consequence that boys may actively reject them rather than risk potential ridicule from peers and criticism at home.' 115

Even when the teaching of social competencies and the SEED skills work well, they often appear to be in conflict with the drive to improve standards, pushing many thousands of schools to raise their GCSE rates. As a result, the importance of the process of education is too often neglected, not out of malice but because there is too little space and time in the curriculum. In the Primary Review, the biggest review of primary school education for 40 years, findings affirm Dweck's research referred to earlier in this paper. Children from all classes respond better to praise for effort not performance. They learn best through working collaboratively, yet seldom have the chance to engage in productive social interaction in the classroom because of the narrow focus on coaching for test questions.

In addition to class and gender, race and racism also play a part in the culture, education and socialisation of young people in the UK. Elijah Anderson observed of the States, and with a relevance to the UK: "During the early years most children [from low-income African-American families] accept the legitimacy of the school, and then eagerly approach the task of learning. As time passes, however, in their relentless campaign for the respect that will be meaningful in their public environment, youth increasingly embrace the street code... the code begins to dominate their public culture – in school as well as out – becoming a way of life for many and eventually conflating with the

culture of the school itself.'116

Prudence L Carter (2003), drawing on her research in Yonkers, New York, points out the loss of this untapped talent or 'ethnic capital'. "Over the years, we have heard scholars, researchers, policymakers, teachers and various laypersons lament how many low-income and underachieving students of colour do not have the cultural 'know-how' to succeed," she writes. "[People say] 'The kids just don't know how to act! Why don't they behave regularly?' Concerned observers wonder how these kids might obtain attributes that would make mainstream individuals more comfortable with them and, in turn, make these kids more upwardly mobile... one might wince at the youths' apparent lack of 'cultural capital'."

Carter explains how in a community in which some young people believe that they are not accorded respect, they make their African-American street identity an alternative source of self-worth. In 'a racially hierarchical society' their identity matters more than attempting to rise in a community than may appear ambivalent about their abilities. Carter argues that the skills that many of these young people possess are discounted by the "powerful gate keepers in school and the workplace". ¹¹⁷

Some young people in Carter's study do 'juggle both sets of cultural capital', acting to fit in with both the street and the dominant white culture, as required, recognising that this will potentially harvest a better socio-economic return. Others pay a price. Carter writes: "My study participants... sensed that cultural presentations of self negatively influenced teachers' evaluations."

She concludes that young people are criticised for failure to subscribe to the dominant agenda. Their refusal exacts a severe economic, academic and social cost to themselves and to society. But Carter argues that in rushing to pathologise the child, we fail to cast a critical eye in assessing the pathology of the system.

How the system fails to work for black children in the UK is discussed in *Tell it like it is how our schools fail black children*¹¹⁸. It gives one example of the insidiousness of racism when not adequately tackled in teacher training. Russell Jones conducted research on white teacher

training students all convinced that they themselves were not racist. One student informed him that there were no ethnic minority pupils in her placement class. Jones said he had noticed three. She explained that their parents were 'professional people', "conflating as is so common, 'colour' and 'problem".

A series of reports flags up the increasing concern that we are failing to address the differences between children. *The Primary Review, the Good Childhood Enquiry, the Rowntree Report on Child Poverty, Narrowing the Gap published by the DCSF* and *the RSA's report, Risk and Childhood*, are among the many. The Rowntree study reported that: "Children from poor homes are nearly a year behind when they start school and two years behind by the age of 14. Most never catch up." 119

The Primary Review's Community Soundings report said: "The contrasts in our children's lives were thought [by our witnesses] to be massive and widening. Those born into familial stability and economic comfort fare well, exceptionally so in many cases. For others, deprivation is profound and multifaceted: economic, emotional, linguistic and cultural. Our community witnesses believed that the accident of birth profoundly and often cruelly divides the nation's children." 120

Children and young people are obviously hugely diverse. Class, culture, race and gender make up a mosaic of different needs that a largely uniform and highly centralised system of education cannot hope to meet. One of the consequences is that for over two decades, employers in the UK have complained that new recruits to the workplace lack essential life skills – even those who are highly qualified. Richard Lambert, Director General of the Confederation of British Industry (CBI), for instance, speaking in 2009, observed: "Our members consistently say that new recruits do not have the skills they need to enter the world of work. Firms have to spend time and money they can ill afford teaching new starters basic 'work etiquette'." ¹²¹

How can this happen? In *What's the point of school?*, Guy Claxton refers to the work of Professor Jo Boaler¹²² of Sussex University, again showing how much process in education matters. She has shown that the students in two classes can be learning exactly the same content

and even acquire similar examination results – but one group can go away with a useful general-purpose set of tools and attitudes that will stand them in good stead in their out-of-school lives, and the other doesn't. "One student with a grade B in GCSE maths say can take away an expanded mind and a greater sense of confidence and capability in tackling all kinds of real-life problems and difficulties, while another, with the same grade, has learned nothing of transportable value from maths lessons at all. The first has been properly educated; the second has been merely schooled." 123

Claxton writes: "Being in school is very much 'on the job'... the problem is that the job you are on, in school, is not going to be very much like the jobs you will find yourself engaged in elsewhere (unless you are set on becoming a teacher or lecturer)... the oddness of school means that transfer is especially unlikely to happen... An antiquated view of knowledge compounds the errors of dysfunctional views of the mind and intelligence. Yet to this day these superannuated assumptions still lurk behind the way we think about the curriculum, examinations and the activities of teaching and learning. Once we accept that knowledge is situated and 'for doing', not just for hoarding and that minds are not just fillable but expandable, a whole new vista of educational possibilities opens up."

Until that happens, as the next chapter briefly sets out, the cost to the economy, employers and the individual is excessively high.

The SEED skills – how much are they worth to employers?

The lack of 'employability' in new recruits to the work place has been much discussed by business leaders and educationalists for over 25 years. Many different skills add up to make a young person employable, many of them specific. But the generic skills are likely to include a positive attitude, self-management, team work, problem solving, communication, persistence, motivation, flexibility and literacy. There is also agreement on what employability is not. It is not to do with the skills for acquiring a job such as interview technique and CV writing. "If anything {such skills} might tend to mask a lack of skills for doing the job." 124

The UK Commission for Employment and Skills (UKCES), set up in 2008, says in its first report (2009) that what is missing in pupils is 'experiential action-learning', 'using skills rather than simply acquiring knowledge'. Sir Mike Rake, chair of UKCES (and chair of BT, one of Britain's largest employers), explains: "These employability skills are the lubricant of our increasingly complex and inter-connected workplace. They are not a substitute for specific knowledge and technical skills: but they make the difference between being good at a subject and being good at doing a job. In 2009, too few people have these skills."

In a survey of 1,137 employers conducted by the Learning and Skills Network in 2008,¹²⁵ while good literacy and numeracy were said to be critical, "equally important are enthusiasm, commitment and timekeeping. Lack of any one of these 'big four' employability skills would prevent a job offer being made to around half of respondents." Qualifications consistently rank beneath social and emotional competencies in recruitment frameworks. ¹²⁶

A survey by the education charity Edge indicated that seven out of 10 employers said they would consider hiring young people with poor exam grades but a lot of work experience. ¹²⁷A survey of 20,000 employers for Scottish Enterprise showed an even more striking picture. Fifty-seven per cent said that what they most lacked from new recruits was

oral communication ability; along with customer handling (52 per cent); problem solving (50 per cent); and team-working skills (43 per cent). By contrast, written communication (30 per cent), literacy skills (29 per cent) and using numbers (24 per cent) came bottom of the list of priorities – almost the opposite ranking to Government policy.

A CBI survey found that 86 per cent of firms rank employability skills as the most important factor when recruiting graduates, ahead of a degree. More than a fifth of employers, in another survey, say they are dissatisfied with graduates' skills. Academic research provides some insights into why this is happening. Joanne Lindley and Arnaud Chevalier in a study for the Centre for Economics of Education looked at two cohorts of graduates from 1990 and 1995. They discovered that many had "failed to develop management and leadership skills while at university". Fifteen per cent also lacked observable characteristics that are related to ensuring higher wages; for example, motivation, presentation and punctuality. As a result, they pay a financial penalty of 21 per cent, almost eradicating the investment made (and debts accrued) in higher education.

The two authors conclude that there is a mismatch between skills 'held' from education and skills 'used' in employment. Many graduates lack entrepreneurial, management and leadership skills "considered crucial to success in the labour market". The study uses the term 'genuinely overeducated people' to describe an individual with a degree in a non-graduate job. "Academic skills appear to have a limited impact on wages, unemployment and the number of jobs held," Chevalier and Lindley point out. "Labour work skills which genuinely overeducated people lack are, on the other hand, rather impotent determinants... Policies to improve the development of these non-cognitive skills amongst students would therefore have a large impact on the labour market achievement of graduates."

Chevalier and Lindley's research reinforces aspects of earlier findings in the US. In *Who Gets Ahead?* The Determinants of Economic Success in America¹³⁰, the authors found that academic ability and non-cognitive traits such as leadership, study habits, industriousness

and perseverance in high school, are positively correlated and that, even net of social-class background, both predict higher occupational attainment and earning years later. For occupational attainment, "non-cognitive traits are as important overall as cognitive skills". For earnings, non-cognitive traits show the larger effect.

Employability, and even more importantly, a life worth living, involves a range of competencies. Whether or not those skills are developed and put into practice effectively depends upon the interaction of a number of factors, apart from what happens in school and further education, as this paper has attempted to point out. These include the influence of family; the quality of relationships and, especially perhaps, the individual's own motivation and determination not to be 'a quitter'. What matters is that the opportunities to acquire and exercise social and emotional capabilities, resilience and grit, should be available throughout life. As resilience research tells us – it is never too late to turn the corner to a better life.

What is also at times surprising is the fragility of the confidence of those who do have a high IQ and who fail to maximise this ability to the full – and the robustness of others, of a lower intellectual calibre, who are propelled further up the ladder of opportunity by their own determination and self-belief. While the former story is frequently recounted, perhaps we need to tell children and young people more often and more imaginatively, the narrative of the 'ordinary' person who turns the dream of making the most of himself into a meaningful reality.

Wellbeing and enterprise

A number of schools and educational establishments have been actively adopting very different approaches to education 'below the radar' for years. But it's only relatively recently that the acknowledgement of the importance of children's wellbeing and the teaching of social and emotional learning and its associated skills has become better understood at a national level – so the roots are shallow.

The regulatory body Ofsted and the DCFS, for instance, have issued a consultation paper on wellbeing indicators. The indicators are designed to help schools fulfil the ambition laid out in the 10-year Children's Plan (2008-2018) "to promote the development of the whole child and young person." In addition, there are several public service agreement targets (PSAs) relating to the development of children's non-cognitive behaviour and wellbeing. The rolling out of the SEAL programme is also planned.

In addition, the Government's flagship creative learning programme, Creative Partnerships Schools, has had some success. The scheme uses artists and creative professionals to work across the whole curriculum with schools in deprived areas. According to research by the National Foundation for Educational Research (NFER) these schools have reduced truancy, achieved significantly better exam results, and inspired children 'to fulfil their potential in class'.

The recommendations of Sir Jim Rose, the former Ofsted chief, on changes to the primary curriculum that are to be implemented in 2011, reflect some of the understanding of a different approach to learning. They give schools more flexibility over what they can teach; introduce a focus on speaking skills and give a new emphasis to play-based learning at the outset of primary school. The changes also include a new section of the curriculum called 'primary personal learning and thinking skills' to teach children how to be happy and healthy and develop their social skills.

All these developments are welcome so long as their application is evidence-based, evaluated holistically and does no harm. If they are

successful and their progress becomes well documented, the pressure for still greater diversity and adaptation in the education system will increase. The Conservatives, for instance, have announced plans to give parents much more control over the daily running of schools (although polls show there isn't much appetite among parents for the idea). The stronger the evidence that social and emotional competencies and a different process of education produces better results for the child, the greater the chance this evolution in education will develop at an even greater pace.

Nevertheless, a tension exists, which might severely limit future progress. These innovations are being attempted in a traditional framework in which IQ remains the chief benchmark of success, reflected in testing and league tables. In addition, social and emotional learning and academic instruction, taught in a non-didactic way throughout the curriculum, each reinforcing the other, has yet to materialise in mainstream education as a constant part of the entire school life of a child. The system as yet is strong in its rhetoric but failing in its ability to 'walk the talk'. Investment in emotional and social skills has been a fraction of that poured into meeting numeracy and literacy targets and academic 'catch up' classes (Nottingham, in contrast, has invested £850,000 of regeneration money to establish best practice in primary schools, with the potential to have a profound effect on a generation of children). In addition, initial teacher training largely ignores the subject. ¹³³

As Christopher Clouder and Belinda Heys warn: "The danger is that SEAL and other such endeavours will fall victim to the prevalent target-setting measures... The 'delivery' model of education is deeply entrenched and in spite of its well-documented shortcomings, will take much effort to be transformed into a more child-orientated approach.'

This is illustrated by some of the initial findings of Learning for Life, a research project based at Canterbury Christ Church University. Its first study, published in 2007, examined how 16 to 19 year olds experience values and character formation in education.¹³⁴ The total sample consisted of 551 students at three sixth-form centres in the south-west of England. Professor James Arthur, author of the study,

reported that on the negative side, students regarded school as the place where they 'learned to succeed in examinations'. However, they did have a commitment to certain core values, which they identified as trust, fairness, caring and honesty, and there were a number of positive outcomes. But pupils said there were, "fewer opportunities to discuss character and values across the curriculum because of pressure to meet national curriculum requirements and the assessment regime."

Again, staff said 'values' are mainly 'caught', but can be 'taught' in assemblies, tutor time and through role play lessons in the compulsory core programme. Students disagreed. The report adds: "Aspiration to self-improvement is strong in these students, their awareness of personal, moral and spiritual issues is more sophisticated than their capacity to be articulate about them; their reflection on them deeper than their sense of efficacy in doing anything about them.

"The challenge is to provide more opportunity for engagement, involvement, self-direction, responsibility to organise on a whole-school basis. Sometimes, teachers are conscientious, leaving so little to chance that their students get little 'look-in' when it comes to determining the real transaction for their learning through which values and character are implied, modelled, practised and validated.

"It requires teaching, curricula and management more flexible and open to design and practice than are usually found at present."

The increasing success of new social and emotional learning programmes and projects, and the work of organisations such as the Common Threads Alliance, Antidote, the RSA, Demos, nef, Open Alliance and the Young Foundation to promote these ideas, might eventually contribute to a tide that policymakers may find hard to resist – especially if a growing number of parents and teachers also give their backing. Crucially, what is also adding to the pull for change is the escalating concern that the transmission of emotional and social competencies, outside the classroom, through day-to-day life in the family, the neighbourhood and the community, is increasingly constrained.

Many young people are now growing up in families in which they are one of several generations who have never experienced the discipline

of paid work. Meanwhile, the traditional apprenticeship schemes that gave young men access to lengthy practical learning provided by older, wiser males, have collapsed at the very time when extended families are weakening and a number of children are suffering the consequences of repeated relationship breakdown.

Some of the symptoms, as has been mentioned earlier, include the evidence of depression, loneliness and unhappiness among significant numbers of the UK's young. 135 To this unhealthy cocktail can then be added the constrictions on childhood in which the times and space young people have that is their own – and adult free – has been whittled away, leaving them less scope to learn resilience and other life skills.

The importance of teaching social and emotional competencies, resilience, self-discipline and grit may be obvious to some, but critics are highly vocal. ¹³⁶ As Professor Katherine Weare points out, it is sometimes represented as, at best, a waste of time and at worst, "a conspiracy to brainwash our nation's youth into conformity, undermine the nation's backbone and meddle with children's psyches by turning teachers into therapists." ¹³⁷

Critics, Professor Weare says, quote from a concept of social and emotional learning not represented by effective evidence-based and evaluated programmes. She has written the two standard works in UK practice, What Works in Developing Children's Emotional and Social Competence and Wellbeing? and Developing the Emotionally Literate School She has carried out a meta-analysis of the main systematic reviews in this area and concludes, countering the critics, that the successful programmes have among their measures:

- a whole-school approach and links with other schools carrying out similar work
- > the involvement of parents and the wider community
- > programmes that last for many years and begin early in infant school
- they promote teachers' emotional and social competence and wellbeing

they provide appropriate staff development and they are coherent and well planned.

However, this kind of success is by no means uniform – and not every child will respond well to programmes such as SEAL. Furthermore, for those on the Right, the spectre of 1960s liberal education, easily stereotyped into letting children 'do their own thing', hangs over the SEED skills. While some of those on the Left regard references to discipline and character education as harking back to a deferential, hierarchical and authoritarian past. What's required to counter these criticisms is more and better research and evaluation; agreed and clearer definitions ('resilience,' for instance, is already frequently used in education documents to describe a child's behaviour when 'self-confidence' appears to be the more accurate description in the circumstances – equally valuable but different). And nationally and internationally, there needs to be a greater pooling of the lessons learned – not least in hearing the testimonies of children and young people themselves.

It is only by trial and testing with rigour and proper evaluation – learning lessons from failures as well as successes – that a diverse range of effective methods to deliver learning fit for the 21st century can emerge. Microsoft, for instance, has built a School for the Future that opened in a deprived area of Philidelphia in 2006. The methodological development tool that emerged is called the 'the Six 'I's model' as a guide to exploring the new educational terrain. The six 'I's are: introspection; investigation; inclusion; innovation; implementation; and, again, introspection – to review the entire process.

Another route, for instance, may be via enterprise in education. Scotland has been particularly successful in this area, improving the SEED skills of many of its young people in the process. A long-term strategy, Determined to Succeed, was established in 2003. Its aim is to change 'culture and attitudes', to 'encourage young people to be ambitious, self-confident, prepared to take calculated risk and not to fear failure' by valuing innovation and entrepreneurship and involving business in schools.

One goal was a target of 2000 school-business partnerships by 2006 – over 7,000 now exist. So, for instance, SP Technology has been raising awareness of engineering as a career by sponsoring two secondary school teams in the Jaguar FI Challenge to design a model Formula 1 racing car. Again, BEC Plastics in Cumbernauld, North Lanarkshire, a leading UK provider of plastics and engineering sealing products, has been involved with a primary school. Children have visited BEC and had lessons in setting up a business, production and finance. In another primary school in North Ayrshire, pupils produced a tourist leaflet now available to visitors. The pupils conducted market research; photographed local attractions; researched the area; wrote, designed and produced the leaflet – and persuaded local businesses to include discount vouchers.

Scotland has 22,000 teachers trained in enterprise education and a network of Enterprise Development Officers and Enterprise Education co-ordinators. Young Enterprise's 'Company Programme' offers students aged 15 to 17 the chance to run their own company, develop business and personal skills and obtain advice and support from local business mentors. In 2003, the programme reached 4,000 students. Two years later, that figure had swollen to 41,000. In 2005, a survey of 1,179 entrepreneurship experts in 29 countries rated enterprise education in Scottish schools as a world leader, 'helping to raise ambition and develop enterprise skills at both primary and secondary level'. ¹³⁸

In the UK, following on from Sir Howard Davies review (2002) of enterprise and the economy in education, the government agreed to fund the equivalent of five days of enterprise learning for all Key Stage 4 pupils from 2005. In preparation, the then Department for Education and Skills (DfES) encouraged the launch of pilots in over 400 schools to develop enterprise learning. The Office for Standards in Education (Ofsted) inspected these schools in 2004.

The Ofsted report illustrates how enterprise in education, encourages associated SEED skills. The report reads: "...only a relatively small proportion of the working population will become entrepreneurs [but] all adults need to be enterprising both in their work and their personal

lives. Businesses need employers who are innovative in their approach to solving problems, can cope with uncertainty and change, communicate well and are able to work effectively in teams. The development of theses skills in young people is therefore an essential part of the preparation for adult life...'

Ofsted defined enterprise capability as, 'the ability to handle uncertainty and respond positively to change, to create and implement new ideas and new ways of doing things, to make reasonable risk/reward assessments and act upon them in a variety of contexts both personal and work.' ¹³⁹

England now has the Schools Enterprise Education Network that includes over 300 network learning schools and 51 enterprise hub schools financed by a fund of £470m over six years from 2005. Imaginative connections are being made with business and industry. However, Ofsted noted that in those schools in which enterprise teaching was unsatisfactory, it was due to similar problems to those inhibiting social and emotional learning and the acquisition of SEED skills in other parts of education. 'Too much emphasis was often placed on the mechanics of the activity rather than the knowledge, understanding and skills that the activity was intended to develop. A common weakness in the teaching was that it was over-directed and gave little scope for pupils to explore their own ideas. Another shortcoming was insufficient time being allocated...to [debrief] the pupils and to find out what they had learned from the experience".

This over-direction and the lack of time and space to permit a child to exercise reflection and agency is part of what makes too much of current education, unfit for the 21st century.

What now?

One of the most influential voices in the recognition of the importance of social and emotional intelligence is *the American educationist Howard Gardner*. In 1983, he published Frames of Mind: The Theory of Multiple Intelligences. In the introduction to the 10th-anniversary edition of his work, Gardner wrote: "In the heyday of psychometric and behaviourist eras, it was generally believed that intelligence was a single entity that was inherited; and that human beings – initially a blank slate – could be trained to learn anything, provided that it was presented in an appropriate way. Nowadays, an increasing number of researchers believe precisely the opposite; there exists a multitude of intelligences quite independent of each other."

Gardner lists eight intelligences. These are linguistic ('word smart'); logico-mathematical ('number/reasoning smart'); spatial ('picture smart'); musical ('music smart'); bodily-kinaesthetic ('body smart'); naturalist ('nature smart'); intrapersonal ('self smart'); and interpersonal ('people smart'). As a counter to traditional learning, 'Multiple Intelligence (MI) theory', developed around Gardner's ideas, is based on the notion that each child has 'a different mosaic of intelligences'. It is now taught in a number of MI schools with some success (although Gardner himself has expressed some concerns that MI theory at times is awkwardly transplanted into a traditional system). What it means in practice, at its most simple, is that, for instance, algebra might be taught through music; geography through drama. These methods are becoming more common in the UK classroom but they are not often rooted in a system in which cognitive and social and emotional competencies are developed together.

Recent research has confirmed that different areas of the brain are strongly associated with different types of activity – emotions, spatial orientation and speech. We also know now that the brain works as a whole dynamic system. Most modes of thinking are multimodal: for instance, mathematicians often talk of 'visualising' problems and

solutions. Visual arts draw from spatial intelligence. Research in Europe and the US suggests that musical education can have a direct impact on improving mathematical ability. Drama can help reading, writing and speech. "Creative insights often occur when new connections are made between ideas or experiences that were not previously related... across as well as within modes of thinking." ¹⁴¹

The Robinson Report ¹⁴² has echoes of Gardner's theories. It states: "Children with poor spatial abilities may have high linguistic or aural intelligence... When children discover their real strengths, there can be a dramatic change in their overall motivation in education... Discovering other intelligences can enormously increase self-esteem, confidence and achievement as a whole. A commitment to developing children's human resources must begin from recognition of how wide, rich and diverse these resources really are."

In *The Element*, a collection of reflections and interviews about how individuals discovered their particular talent or intelligence, Sir Ken Robinson gives the example of choreographer Gillian Lynn. In primary school, her handwriting was poor, she didn't concentrate, she couldn't apply herself and she was disruptive and often in trouble. The school told her parents that it thought she had a learning disorder. She was taken by her mother to see a specialist. He listened to Gillian's mother reciting her daughter's problems. He observed Gillian. Then he told Gillian he needed to talk to her mother in private. So he turned on the radio and left the child in his room.

He told Gillian's mother to wait in the corridor with him and watch her child. As soon as she was alone, Gillian was on her feet moving to the music, all around the room. The specialist turned to Gillian's mother and said: "Mrs Lynne, Gillian isn't sick. She's a dancer. Take her to dance school."

Gillian's mother did as she was told. Lynne told Sir Ken: "I walked into this room and it was wonderful. There were all these people like me. People who couldn't sit still – people who had to move to think."

She became a soloist at the Sadlers Wells Royal Ballet. She founded her own dance company. She has worked with Andrew Lloyd Webber and is the choreographer of *Cats* and *Phantom of the Opera*, among other internationally famous productions. Sir Ken writes: "She's been responsible for some of the most successful musical theatre productions in history... Somebody else might have put her on medication and told her to calm down. People achieve their best when they are in their element... When people find the things that they can do, they get better at everything. It's true everywhere." ¹⁴³

The core of findings such as these is obviously not that social and emotional competencies and their associated skills should supersede cognitive abilities – but that they reinforce each other in settings that encourage an individual to literally think for themselves and work well with others. How this can happen, what constitutes 'character education', is not a modern preoccupation. It has been a concern of the privileged for thousands of years, going back to the ancient worlds of Greece and Rome as well as China and India. Then, education was seen as the transmission of knowledge, tacit as well as formal, but it was also about the ability to think about thinking (metacognition); the management of emotions and the importance of motivation, goals and inner discipline.

Philosophers and theologians have long debated what is 'good' character and how best individuals can manage their emotional and social lives in order to behave in correct or 'virtuous ways'. In the 17th century, for example, philosopher John Locke saw character formation as more important than intellectual attainment. The Age of Enlightenment gave birth to further insights and experiments in character education. In the 19th century, John Stuart Mill advocated that "development of character is a solution to social problems and a worthy educational ideal". Robert Owen, in 1816, established the Institution for the Formation of Character, to "train children from their earliest infancy in good habits of every description ... [and only afterwards] may they be rationally educated."

The first headmaster of Stowe School, J F Roxburgh, declared that his goal was to turn out young men who would be "acceptable at a dance and invaluable in a shipwreck". Robert Baden-Powell, founder of the scout movement, hoped to instil in his boys "some of the spirit of self-

negation, self-discipline, sense of humour, responsibility, helpfulness to others, loyalty and patriotism which go to make 'character'." ¹⁴⁴ He described his movement as a 'character factory'. ¹⁴⁵

The importance of social competencies and character building has long been the hallmark of private education, preparing its pupils to become future leaders and men of standing. Thomas Arnold, the headmaster of Rugby School, believed in 'muscular Christianity'. Games in particular were seen to develop the virtues of fairness, loyalty, moral and physical courage and cooperation. As Professor James Arthur points out, character was seen as a form of moral and social capital. The function of the school was to provide the correct environment for the 'right' people to know one another – "education designed for a social elite". ¹⁴⁶ 147

In the 1930s, character education, and its relationship to the acquisition of life skills, moved into American popular culture and became the provenance of the masses. Dan Carnegie wrote a best seller, *How to Win Friends and Influence People*, that sold in millions. He argued that success was 15 per cent technical knowledge and 85 per cent the ability to express ideas, assume leadership and arouse enthusiasm in people.

More recently in Handbook of Moral and Character Education, ¹⁴⁸ Thomas Wren gives a simple description of morality and moral education. He writes, "Seen from the outside, morality provides a way of getting along with others, and from the inside, it is a way of getting along with oneself. More crudely, moral education is at once a necessary condition for social control and indispensable means of self-realisation." In another contemporary attempt to define the area, Professor James Arthur argues that "Character education is not the same as behaviour control, discipline, training or indoctrination; it is much broader in scope and has more ambitious goals... 'character education' has much more to do with the formation and transformation of a person that includes education in schools, families and through the individual's participation in society's social networks."

Arthur asks the key questions of this potential 'transformation' that a larger debate, beyond this paper, might begin to address. Namely, "Is it possible in a heterogeneous society, composed of people who sharply disagree about basic values to achieve a consensus about what constitutes character education for citizens in a democracy? Can we agree on what constitutes character education, on what its content should be, and how it should be taught?" ¹⁴⁹

It's been estimated that the store of human knowledge is doubling every 10 years. As we specialise, we tend to know more and more about less and less. This specialisation is necessary, but the risk is that we will lose sight of the larger picture: "of how ideas connect, and inform and contextualise each other ... In these circumstances young people need more than access to information and ideas: they need ways of engaging with them, of making connections, of seeing principles and relating them to their own experiences and emerging sense of identity." As the Robinson Report argued cogently, these are the essential purposes of creative and cultural education and the need to realise them couldn't be more pressing. ¹⁵⁰

In 2007, a bipartisan group of prominent American educators, economists, business and union leaders, who for two years had heard evidence as the New Commission on the Skills of the American Workforce, published an influential report, entitled *Tough Choices or Tough Times*, ¹⁵¹ which called for greater investment in the 'world-class skills' of 'creativity, flexibility and innovation'. The report described a world in which "comfort with ideas and abstractions are the passport to a good job; in which creativity and innovation are the key to a good life; in which high levels of education – a very different kind of education than most of us have had – are going to be the only security there is."

Education rightly has a conservative instinct. Children's futures are at stake; the intellectual and moral values of the next generation are at risk. However, as Gardner argues, sometimes radical change can no longer be avoided, even if it is best organised in an evolutionary way. "What can and should happen to educational institutions when dramatic alterations take place in the ambient society?" he asks. "Such changes can take place as a shift in values ... as the result of scientific findings that alter our understanding of the human mind or because of broader historical forces like globalisation ... At such times, the tension

between the pace of institutional change on the one hand, and the pace of scientific discoveries and historical forces on the other, can become acute."

Education has had to adjust in the past, for instance, to the arrival of the printing press and to the industrial revolution. Now it must respond to the demands of new technology and globalisation on the one hand, and on the other, the growing concerns around the holistic development of children and young people. S Luthar and L Zelazo point out: "No child can live well, love well or work well if his or her physical survival is in jeopardy ... if the next generation of youth is to manifest high resilience – to become psychologically healthy adults and productive, responsible contributing members of society ... they must receive emotional sustenance and support ... At the same time, all such supports will come to naught as long as families must constantly struggle to meet the most basic needs of food, shelter, safety and education." 152

While education can't erase the harshest impact of deprivation, it can try to mitigate some of its consequences. We have reached a point in history when the requirement of teachers and pupils to be creative, flexible, innovative, enterprising and self-motivated has never been more vital for the whole of society – not just its elite. A diversity of approaches to the business of learning is an imperative – as is the establishment of a consensus that 'good' schooling has to nourish a range of capabilities in all children. In order for both to happen, we require a different frame of mind about what constitutes the terrain of education. As Einstein said, 'The world we have created is a product of our thinking. It cannot be changed without changing our thinking.'

What next?

The arguments set out in this paper will seem to some like nothing more than common sense. They are not in themselves new insights, though they have often been forgotten by many educators or only tentatively reflected in policy, as well as in practice. But the urgent need for a more fundamental shift of gear is growing. Over the last twenty years a worryingly large group of teenagers have remained disengaged from education. Even at the peak of the boom the numbers of young people 'Not in Employment Education or Training' (NEETS) hovered around a million. With rapidly rising youth unemployment (predicted to be over 1m by the end of 2009) we now face the prospect of another generation moving into adulthood without the skills or experience they need.

Policy-makers face a challenge. The sheer volume of evidence on the importance of the SEED skills is remarkable. But there is less evidence on exactly what works in their cultivation. Far less attention has been paid to this question than has been paid to other aspects of school policy – such as literacy and numeracy, or class sizes. What is therefore required is a four pronged approach that simultaneously addresses the demand for action now but also invests in improving performance in the future.

First, we need much more rigorous and systematic innovation to find out what works best and in what environments. Currently there is no systematic innovation in this field in the UK. While healthcare benefits from very substantial public investment in innovation – covering everything from new drugs to new service models – innovation in learning is ad hoc, dependent on particular foundations, and the enthusiasms of ministers. In the US, by contrast, the new administration has committed \$700m to an education innovation fund. The UK needs a similar approach through a Learning Innovation Fund (perhaps of the order of £50-100m) for the early stage of ideas, for formal pilots and trials, and then for growing new models. These new models may come from teachers and schools, from voluntary organisations or colleges, or

from children and young people themselves. Developing these diligently, fine tuning them to suit particular circumstances , and measuring their effectiveness, initially on a small scale, is a far more effective approach than implementing new policies at a national level before they have been fully tried and tested.

Second, curriculum development needs to sustain the momentum of recent years, embedding proven programmes such as those on emotional resilience into the mainstream curriculum, backed by sufficient investment, training and monitoring. We have a lot to learn from countries such as Finland. It regularly tops the Organisation for Economic Co-operation and Development's Programme for International Student Assessment (PISA). This is a triennial world-wide test of fifteen year olds' scholastic performance. Finland not only excels in maths, science and languages, but also devotes great energy to the development of character and personal qualities. The Studio Schools Trust that the Young Foundation is developing in partnership with a group of local authorities and national government is adapting similar curriculum ideas - drawing on experience from around the world, as well as best practice within the UK. Others too, are doing remarkable work to develop curriculums relevant to life and work today. These need to be supported and extended, since too often debate about education in recent years has focused too much on structures and not enough on process: the way in which schooling takes place.

Third, government needs to pay particular attention to the current cohort of teenagers who are entering a labour market in which there will be fewer jobs. Today's NEETs are in danger of being unemployed for much of their lives, if past evidence is any guide. Without the experience of work, and the chance to learn the many tacit skills that are so vital to success at work, they risk becoming a lost generation. A Future Jobs Fund for long-term unemployed 18-24 year olds is a helpful step, but just as important will be action to ensure that this age group has the support and experience to become employable – and stay in those jobs.

Many organisations have excellent track records in this field, including the Princes Trust, Groundwork, Rathbone and Training for

Life. The Young Foundation is also running a number of projects in this field. These include: 'Fastlaners' (helping unemployed graduates find work through an intensive two-week programme of peer support and coaching); 'Faking it' (giving unemployed 18-24 year olds training, support and the challenge of becoming chefs and waiters in restaurants during an intensive fortnight aimed at galvanising self-confidence and social skills and neouraging peer support); Enternships (internships in entrepreneurial small businesses); and Arrival (helping teenagers in school to work on achieving their ambitions) amongst others. When projects like these succeed in keeping young people motivated, optimistic and engaged, and active in finding their own solutions, a huge benefit is provided not just to the young people but to society as a whole.

Fourth, we need to invest more in finding better ways to support parents from the conception of their child and through his or her early years. The longer term social and economic benefit is already proven; the earlier the intervention, the higher the long-term return. James Heckman argues that "early interventions have much higher returns than the other later interventions such as reduced pupil-teacher ratios, public job training, convict rehabilitation programmes, tuition subsidy... or expenditure on police." In spite of this strong evidence base, under fives proportionately are the Cinderella group in terms of public spending. The under fives receive far less investment than pupils in secondary, further and higher education. 155 Here, too we need more innovation and diversity in the kind of interventions offered. What's also required is appropriate education for young and vulnerable parents so they can understand better that how they behave and interact with their baby and toddler strongly influences the development of their infant's brain - love has a neurological as well as an emotional impact.

Every one of these four approaches is considerably weakened if, as has been argued repeatedly in this paper, the context of children's lives isn't also addressed. Multiple deprivation undermines not just the individual but also the society of which he or she is a member.

The agenda set out in this report cuts across political boundaries. It is too important, too urgent, and supported by too much evidence, to

be legitimately owned by any one party or group. It addresses the health and wellbeing not just of the individual but of society as a whole. A society in which attitude is rewarded as much as aptitude, and a child is not locked into deprivation because of an accident of birth.

Those opposed to this scale of change argue that the acquisition of SEED skills is harder to measure and test. Critics say that they are a 'soft' alternative to academic excellence, a part of 'dumbing down' and they distract children from what really matters. However, for generations, the best schools have educated pupils so that they make the most of their academic abilities and develop self-discipline and grit and other social and emotional competencies, too. As a result, irrespective of IQ, they are better equipped to think for themselves and enjoy a fulfilling life.

For the great majority of children, however, that level of excellence in schooling will only be realised if those with the power to shape education make the ideas set out in this report as central to their thinking as the more familiar issues of literacy, numeracy and academic qualifications.

Annex

This annex contains a few examples of the interesting current practice and research both in the UK and around the world.

UK SCHEMES, PROJECTS AND SCHOOLS

Philosophy for Children (P4C, also known as Sapere) is an educational charity that raises oracy levels in primary schools with disadvantaged children through philosophical inquiry. Oracy is a word coined from an analogy with numeracy and literacy by educator Andrew Wilkinson in the 1960s, to draw attention to the neglect of oral skills in education. In one P4C project, for instance, a Wandsworth primary school is working with children from two year groups to improve their reasoning and 'higher order' thinking. P4C uses 'communities of enquiry' in which teacher and children 'collaborate with others to grow in understanding of the material, personal and ethical world around them'. Education is often project based with a multiple intelligences approach, and a very high engagement rate of parents.

www.sapere.org.uk

Royal Society for the encouragement of Arts, Manufactures and Commerce (RSA) Opening Minds aims to help schools to provide young people with the skills or competencies they need to thrive in the real world. It has a broad framework through which schools can deliver the content of the national curriculum in a creative and flexible way. Opening Minds was developed at the turn of the millennium in response to a belief that the way young students were being educated was becoming increasingly detached from their needs as citizens of the 21st century. It is based on five sets of competencies, including citizenship, learning, managing information, managing situations and relating to people.

Opening Minds is now used in over 200 schools across the country

and is growing rapidly. In 2008, the RSA opened the RSA Academy in Tipton which is the first school to be designed around the principles of Opening Minds.

www.thersa.org

Southampton local education authority, under the direction of educational psychologist Peter Sharp, has made emotional literacy and the development of social competencies central to schools. This approach has required senior management in health and education to devise a behaviour plan for children with the development of social and emotional capabilities at its heart. Teachers are trained in behaviour management and anger management, and group training is offered to staff (since their wellbeing matters, too). After the initial implementation of the strategy there was a 60 per cent reduction in permanent exclusions between 1997-2001 (with no subsequent rise) and an increased attendance rate.

Centre for Real World Learning at the University of Winchester. Its co-director Guy Claxton, author of *What's the Point of School?*, investigates the SEED skills, including resilience, collaboration and enterprise, and tests their application to learning.

www.winchester.ac.uk/realworldlearning/

Waldorf Steiner Schools, based on the educational philosophy of Rudolf Steiner, were formed in 1919. There are now over 1,000 schools in 60 countries. Learning is interdisciplinary, integrating practical, artistic and conceptual elements. It emphasises the importance of imagination, the analytical and the creative. The aim is to provide young people with the basis on which to develop into free, moral and integrated individuals, and to help every child fulfil his or her unique destiny. Schools and teachers are given considerable freedom to define curricula within collegial structures.

www.steinerwaldorf.org.uk/

Creative Partnerships (CP) is the UK Government's flagship creative learning programme. It uses artists and creative professionals to work with schools in deprived areas across the whole curriculum. Research indicates that in the schools in which CP is given strong support, truancy has been reduced by a fifth and exam results have improved by up to two and a half grades at GCSE.

www.creative-partnerships.com

SMALLER PROJECTS IN THE UK INCLUDE:

Ian Mikardo School in Tower Hamlets, east London, is a school for 35 boys with social, emotional and behavioural problems. All have been previously permanently excluded from school. Under the guidance of headteacher Claire Lillis, 18 boys have moved into further education, training and employment. Ofsted assesses the school as 'outstanding'. Lillis's aim is the development of social and emotional competencies to counteract the often very insecure home backgrounds. She has replaced the national curriculum with motivational study themes such as my world, my body, and my passport, which includes literacy, numeracy and the management of emotions. She employs a part-time psychologist to help the staff cope with sometimes very disaffected children. The school is to open a restaurant, which will offer vocational opportunities.

www.ianmikardo.com

Wellington College is a public school which, under master Dr Anthony Seldon, has appointed a teacher in wellbeing, and pays greater attention to holistic education and social and emotional competencies. It also gives lessons in happiness, developed in collaboration with the Well-being Institute of the University of Cambridge. The programme, introduced in 2006, initially for students in years 10 and 11, aims to equip them with an understanding of what makes lives thrive and flourish, and how they can improve their chances of experiencing happiness, good health, a sense of accomplishment and lasting companionship. As

they gain this understanding, they will be taught a set of skills to help them achieve this in a practical way. The lessons should help them cope better during their teenage years, both in and out of school, and later at university.

www.wellingtoncollege.org.uk

The Able Project in Wakefield, west Yorkshire, is a sustainable social welfare initiative for young people disaffected by education, some of whom are young offenders. Based on aquaculture (fish farming), teenagers are helping to rear a range of fish including sturgeon, with the aim of eventually producing Wakefield caviar. Bicycle repair and recycling is also part of the project. It teaches life skills, numeracy and literacy to 13 to 16 year olds, many of whom can't yet read or write. Some will eventually gain NVQ qualifications. The project also improves their health and wellbeing, using health trainers. Graham Wiles, its founder, wants to roll out similar schemes on other sites.

www.theableproject.org.uk

INTERNATIONAL PROJECTS

Lumiar schools are headed by Ricardo Semier, president of SEMCO, a Brazilian machine manufacturer and service provider, renowned as the creator of a workplace that empowers employees and opposes a pyramid corporate hierarchy. Lumiar schools are not about incremental change; they are transformational, which means 'going beyond the present form'. The school believes that it is the role of the teacher to customise learning to each child, finding out what he or she is interested in, and using that as a route to developing social competencies, knowledge, values and attitudes. Children are engaged in projects that focus on problem solving, 'doing', communicating, researching, and making connections. The staff consists of mentors (one to 20 pupils) and masters who teach – both have a pedagogical approach. Children are continually assessed. www.lumiarschool.spaces.live.com

School of the Future, developed by Microsoft, opened in Philadelphia in 2006 for 750 students. It is high tech, but also modelled on Microsoft management techniques that include learning about organising and planning, negotiating, managing relationships and 'dealing with ambiguity'. Laptops contain software that assesses how quickly a pupil is learning a lesson. Pupils who learn quickly are encouraged to dive deeper into the subject; for others, extra help is offered.

www.microsoft.com/education/sof

Hyde private and public schools in the US were founded in the 1960s by Joseph Gauld. He believed the education system was overly focused on student achievement rather than character. He was prompted by one of his brightest students, who had little curiosity, receiving the highest grade in the class, while the lowest grade was given to the pupil who had curiosity and strong work ethic but lacked the innate academic ability of his peer. The schools begin with a focus on courage, integrity, leadership, curiosity and concern, and their cardinal principle is that 'every individual is born with a unique potential that defines a destiny'. Hyde schools operate very closely with parents and carers of children, using the compass of 10 priorities. They include truth over harmony (sometimes parents have to face disharmony and make a stand), and attitude over aptitude. Honest efforts are as important as successful outcomes. www.hyde.edu

Project Zero is a research group based at the Harvard Graduate School of Education, established in 1967. It has a number of research projects based around the importance of reflection in teaching and how to use the concept of multiple intelligences in the curriculum.

www.pz.harvard.edu/index.cfm

Manchester Craftsmen's Guild

Established in 1968 by William Strickland in Pittsburgh Pennsylvania offering pottery and photography classes in a domestic house to inner city minority-ethnic children. It grew to include Bidwell, a vocational

educational centre. MGC then acquired a purpose-built multi-million dollar vocational training and visual arts centre, offering young people the best setting in design and landscaping plus good nutrition and an ambitious and nationally famed vocational and arts education programme. Local Pittsburgh schools have metal detectors, police, graffiti and bars. MGC doesn't. Staff also go out to dozens of colleges and universities. Pupils, often from chaotic homes, are encouraged to return as instructors and role models.

The philosophy of MCG centres on creativity, enterprise, resilience, strong relationships, technical and career development, self discipline and drive. "{We believe} by giving students an opportunity to learn in a safe and caring environment while working to instil in them a sense of pride and accountability, we can better prepare them to find success in their own lives."

www.manchesterguild.org

Responsible Schools – a scheme run by Fundacion Marcelino Botin in Santander Spain. Begun in 2003, the scheme encourages, supports and facilitates children's 'affective-emotional, cognitive-behavioural and social skills'. It involves the family, the school and the community.

The scheme – working with the Education Ministry of the Government of Cantabria – offers training, monitoring and evaluation and research in a number of local schools. It is also involved in an educational innovation and research project in two schools exploring more intensive action. It has also launched an international platform for pooling information on social and emotional education and conducted the first international review of social and emotional education, (October 2008).

www.socialandemotionaleducation.com

Notes

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Education systems rightly teach children literacy, numeracy and academic skills. But a narrow emphasis on academic skills and intensive testing has squeezed out another set of skills – collaboration, creative thinking and coping with change – at the very time they are becoming more important than ever.

Grit brings together a huge amount of evidence showing the importance of these skills to success in life as well as at work, and their importance for social mobility. It analyses the connections between social intelligence, emotional resilience, enterprise and self-discipline – and shows how these can be cultivated.

This broader 21st-century curriculum is already taking shape in schools and projects around the world. But it continues to be sidelined by policy-makers and legislators. That these are harder to test and measure, and harder to turn into national standards and targets is no longer, if it ever was, an acceptable reason to ignore them.

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